JULY 2012
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choice

THE PEOPLE'S WATCHDOG

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humidifiers
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by slings & carriers
ke lights

217 products reviewed!

REE-RANGE EGGS
agey about the truth

ARBON OFFSETS
onservation or con?

BUBBLE-WRAPPED BABIES
See through the scare tactics

WHITER THAN WHITE?
The truth about toothpaste

The weight of health insurance

We help you find the right cover

The magic of CHOICE

Our CEO announces a significant change – and reflects on his time at the helm of CHOICE

After three-and-a-half years of leading CHOICE, I have recently announced that I will be leaving to return to the UK. While my departure from CHOICE is for positive reasons – to enable our children to know their grandparents – it is with deep sadness that I leave such a great organisation and a wonderful country as well. I am very grateful for the privilege of having led CHOICE for the past few years.

It seems to me that the magic of CHOICE is captured in one important word – trust. It is the reason why CHOICE has the impact it does, it's probably why you're a member, why we are taken seriously in boardrooms and around Cabinet tables, and it is what underpins our work to improve the lives of all consumers.

I'm delighted to say that CHOICE was recently rated as the fourth most-trusted organisation in the country, after Guide Dogs Australia, Surf Life Saving and the Country Fire Authority. In this survey, published in *Retail World*, we also ranked the highest of all the media entities.

For CHOICE, our trust and credibility comes from three core ingredients.

First, it is the spirit that we embrace at CHOICE, of speaking without fear or favour. The CHOICE Awards and Shonkys showcase our willingness to do just that. (As an aside if you have any shonky products or services you would like us to consider this year, let me know at nick@choice.com.au)

Second, it is the robustness of our research and approach. Take the health insurance report in this magazine, for which we waded through thousands of policies – two of our finance experts spent three months data crunching for this story!

And finally it is you, our members, who give us independent financial means, as well as a connectedness and credibility. I've spoken to many members on the phone and met many others at meetings around the country and can honestly say you'd be hard-pressed to meet a more engaged or more decent bunch of people.

Being CEO of CHOICE has been a fabulous experience for me. I believe CHOICE not only has an important place in the nation's heart, it also has a heart beating so strongly that it will continue to be the people's champion for many years into the future.

All this and much more make up the magic of CHOICE.

As I conclude what is one of my last editorials, I am reminded of the brilliant children's author Dr Seuss who once said, "Don't cry because it is over. Smile because it happened." Thank you.

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CHOICE. The People's Watchdog

CHOICE gives you the power to choose the very best goods and services, and avoid the worst. We pay full price for all the products we test, so we remain 100% independent. We don't take advertising and we don't accept freebies from industry. We're not a government body and our consumer publishing and advocacy is almost entirely funded by subscriptions to our magazines, **choice.com.au** and from other services we supply to benefit members and consumers. CHOICE product ratings are based on lab tests, expert assessments and consumer surveys. CHOICE staff also research a wide range of consumer services. They reveal the truth behind the facts and figures, and investigate the quality and the claims.

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Foreign exchange transactions: we follow the money. See our report on page 32

CHOICE's Andy Kollmorgen has his eye on foreign exchange transactions

Flavour saviours

Scientists have identified the compounds responsible for making a great-tasting tomato, describing their findings as "the first step to restoring good flavour in commercial tomatoes".

The team from the University of Florida examined the levels of sugars, acids and aroma volatiles – molecules that vaporise and release their smell into the air – in 152 types of heirloom tomato as well as supermarket varieties. They then conducted taste tests where 170 volunteers assessed the flavour intensity, sweetness, sourness and overall flavour of each tomato and how much they liked each sample. The findings reveal that people preferred sweeter-tasting tomatoes, but these didn't necessarily contain the highest level of sugars – some aroma volatiles made the tomatoes taste sweeter. Additionally, the most abundant volatiles didn't contribute to "likeness", while other less abundant ones did.

RACHEL CLEMONS

Prostheses in limbo

The federal government has announced that prostheses with unacceptably high failure rates, such as hip and knee replacement devices, will no longer be covered by private health insurance.

Currently, more than 9000 prostheses are listed on the prostheses list, with private health insurers paying a mandatory benefit when they are implanted in patients. A consultation process will start in 2012-13 to determine a listed failure rate benchmark.

In excess of 5500 Australian patients have been implanted with two, now recalled, DePuy hip replacement devices. The two faulty devices were used for at least two years after the TGA and the manufacturer had been made aware of problems with them. See Joint Failure in *CHOICE* March 2012, or go to choice.com.au/hipimplants.

UTA MIHM

Sweat it out

Researchers have found that taking up exercise could reduce menopause-related symptoms. In a Finnish trial of 176 women aged 45-63 who weren't regular exercisers, subjects assigned to the exercise group did 50 minutes of aerobic exercise four times a week, while the control group attended health lectures. They all reported on the presence and severity of symptoms including night sweats, mood swings, irritability, depressive mood and headache twice per day. After 24 weeks of exercise, the prevalence of night sweats and mood swings significantly decreased, as did the severity of mood swings and irritability.

KARINA BRAY

Playing for keeps

Despite our best efforts, it looks like $2-plus ATM fees are here to stay, and may even rise. A government task force has found that ATM fees are easily avoided due to the availability of in-network machines and that capping fees could lead to fewer machines. As part of our Better Banking campaign, we think fees should be equivalent to the cost to banks of delivering the ATM service rather than serve as a separate revenue stream.

But the task force did get a few things right. It has committed to working with the banking industry and retailers to abolish ATM fees in some very remote Indigenous communities. The government also says it will ask the ATM task force to "consult further" with the ATM industry about making the fee amount clear before a transaction starts.

ANDY KOLLMORGEN

BREAKING NEWS

Cow runs dry

The Reserve Bank of Australia has responded to CHOICE's calls to curb excessive credit and debit card surcharges. From 1 January 2013, merchants can only pass on the reasonable cost of card acceptance.

"We are now calling on those businesses with the most conspicuous surcharges, such as Qantas and Cabcharge, to justify how these meet the test of reasonable costs," says CHOICE head of campaigns Matt Levey. "The credit card surcharge cash cow can no longer be milked."

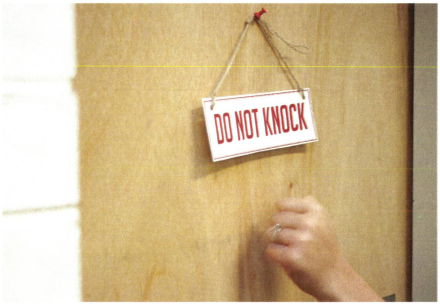
Copycat ban

Trafficking in knock-offs of Australian and overseas brands will be a riskier ruse for perpetrators from April 2013, when new trademark protections recently passed by federal parliament come into effect. Customs officials will be able to tip off owners of trademarks, it will be less costly to take counterfeiters to court, and maximum jail time will increase from two to five years.

Heads up

Two genetic variants associated with migraine without aura – the most common form of migraines – have been identified by scientists. This finding could lead to new therapies for some of the 12% of people who are migraine sufferers.

IMAGE: ISTOCK PHOTO



No knockers please

A bill to establish a Do Not Knock Register along the lines of the current Do Not Call Register was introduced in parliament in late May, following complaints from consumers "who have signed contracts whose details they were unaware of [and] who felt the pressure on their front doorstep to sign contracts to buy products from telcos, energy companies, et cetera," said the bill's sponsor, Labor MP Steve Georganas.

Survey results released by Victoria's Consumer Utilities Advocacy Centre earlier this year showed that 85% of the 327 respondents had been door-knocked at least once over the previous two years and 38% had been door-knocked three to five times. The most common misleading sales tactic was the assertion that the area in which the consumer lived was changing to a different power company.

ANDY KOLLMORGEN

Intolerant behaviour

The Domino's Pizza chain has come under fire from people with coeliac disease for falsely advertising their pizzas as gluten free.

Domino's, which is endorsed by Coeliac Australia, claims that its pizza bases are gluten free, but adds a disclaimer stating that the pizzas "may contain traces of gluten".

Coeliac Australia does not recommend people with coeliac disease consume products that have a "may contain" statement.

Executive officer David Sullivan says Coeliac Australia will be contacting Domino's about the issue. "It really is a confusing message and we'll have to do something about it."

Domino's declined to comment on the matter.

AFRAH FAZLI

Cheap as chips?

A US government study has found it's cheaper to eat healthy food rather than calorie-laden junk food. The research questioned the methodology of previous studies that have come to the opposite conclusion.

The perception that healthy food is more expensive "may be influenced by studies that found many healthy foods cost more per calorie than less healthy foods. This is one way, but not the only way, to measure the cost of a healthy diet," say the US Department of Agriculture (USDA) study authors.

The new USDA research compares the prices of foods using price per calorie, per edible gram and per average portion. The study found that unhealthy foods, especially those high in saturated fat and added sugar, "tend to be high in calories and to have a low price per calorie. When measured on the basis of edible weight or average portion size, grains, vegetables, fruit and dairy foods are less expensive than most protein foods and foods high in saturated fat, added sugars, and/or sodium."

ZOYA SHEFTALOVICH

Green light for hybrid

We took the latest Toyota Camry Hybrid Luxury for a ride and found it was a pleasure to drive for a large car in Toyota's hybrid family. However, its size is not without some compromise to economy compared with Toyota's other hybrid offerings.

Performance

The Camry Hybrid took an impressive 8.5 seconds to go from 0-100km/h. The leather-wrapped steering wheel feels slippery, but steering is very light. It responds quickly for a big car, but not as well as other large cars. The steering wheel is also adjustable for both height and rake, and the brakes stop the car quickly from any speed – 10m from 50km/h.

The car has continuously variable transmission (CVT) which is fast to respond when you accelerate quickly. The car also feels stable even when going fast around corners, and the body feels solid.

Comfort

The cabin is comfortable – the seats are firm, and the backrest and pew of the driver's seat provide enough lateral support. A bit of road noise enters the cabin when driving on rough-surfaced roads, and slight wind noise is present from the A-pillars when going over 100km/h. Some of the features which make driving it enjoyable include a reversing camera, electric driver's seat adjustment with two memory positions, and a blind-spot monitor with a light built into the external mirrors that comes on if there is another car next to you, warning you not to change lanes.

Savings

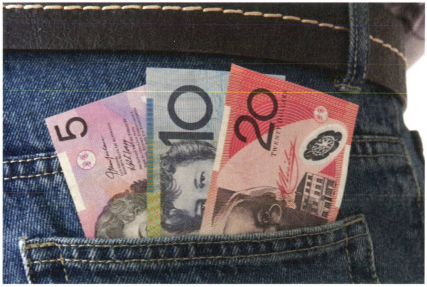
When it comes to petrol consumption, Toyota claims the Camry Hybrid uses 5.2L/100km, but we found it was closer to 6L/100km, which is still good for such a large car. The petrol engine also turns off when you come to a stop, thus saving fuel, and it's hardly noticeable when it fires up.

CHOICE verdict

The Camry Hybrid base model is about $5000 more expensive than the Camry base model, which does make this a relatively expensive car and not quite as fuel efficient as other hybrids. However, we recommend it if you're looking for a larger car but still want to reduce your fuel consumption.

MATTHEW STEEN

TOYOTA CAMRY HYBRID
PRICE From $34,990-$45,675
CONTACT toyota.com.au



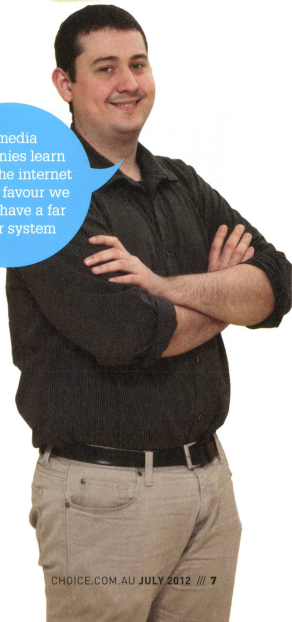
Putting the brakes on breaks

High-income earners will receive less government assistance with their out-of-pocket medical costs from this month. Previously, the medical expenses tax offset allowed Australians with high medical out-of-pocket costs to offset 20% of the costs above $2060.

The offset is now means tested, and singles who earn above $84,000 and couples or families with an income above $168,000 can only offset 10% of the costs above $5000. This is on top of the Private Health Insurance Rebate means testing, see *CHOICE* April 2012, or choice.com.au/healthsatisfaction. **UTA MIHM**

Made in...

In response to strong member demand, CHOICE will now specify the country of origin of some of the products we review. A recent reader survey found a clear majority were interested in this information, so we will collect it whenever it is feasible. In some cases, it's impossible to provide this data. With products such as electronics, for example, there may not be one clear country of origin, especially where parts from a range of countries are assembled in another. **MICHAEL HOHL**



➤ I SAY

Terms of enragement

Entertainment and TV companies have long profited by carving the world into different regions and then discriminating between them. However, the internet cuts across these boundaries. I used to watch *The Daily Show*, a US cable TV news parody program, for free on a legitimate website in exchange for sitting through the odd ad or two. Free, legal and easy. Everyone wins.

However, after Foxtel bought exclusive rights to distribute *The Daily Show* in Australia sometime last year, the show disappeared from the free-to-air ABC2 channel as well as from the internet. That's right, when I logged onto the website, I was greeted with "Sorry, this video is unavailable from your location."

If I want to continue watching my program, I could pick up a Foxtel subscription for about $61 per month or pay $10 a month for the episodes from iTunes. Both of these options are far too expensive.

> If media companies learn to use the internet in their favour we would have a far better system

Alternatively, I could take a crash course in IT and try to trick the site into thinking I'm American. This is possible and legal (for now), but also very complicated. Then there is the ill-advised option of joining the legions of users downloading illegally.

Of course, the simpler choice is for media companies to stop fighting the internet and learn how to use it in their favour. However, as long as they refuse to do this we are left with a system that's far worse off.

Everyone loses, except Foxtel.

MADISON CARTWRIGHT

Booze-cut benefits

Significant health and economic benefits can be ours for the taking if we cut our alcohol consumption. Deakin University researchers estimate the health sector could save $789m per year if Australian adults consume the equivalent of five standard drinks – three to four (150mL) glasses of wine, and four full-strength or six light cans of beer (375mL) – less each week.

Potential yearly cost savings include $427m in workforce productivity and $21m in home-based productivity. These are due to a 35% drop in cases of disease, 38% fewer deaths related to long-term high-risk levels of alcohol consumption and a 34% fall in the healthy years of life lost as a result of this risk factor. **RACHEL CLEMONS**

6kg

The amount of weight loss that can reduce artery stiffness in obese people with type 2 diabetes

Lighter load for the heart

Research conducted by Sydney's Garvan Institute of Medical Research found that losing a modest 6kg reduces artery stiffness by 20% in obese people with type 2 diabetes. Hardening of the arteries, or atherosclerosis, increases the risk of heart disease which is the leading cause of death for people with diabetes.

Obesity, type 2 diabetes and atherosclerosis are all associated with a chronic low-grade inflammatory state. The research showed that artery stiffness is directly associated with inflammation in fat tissue. Losing weight reduces inflammation, which in turn relaxes the arteries. **KARINA BRAY**

Crunch time for fussy eaters

CHOICE is concerned that a new drink aimed at children aged one to 10 implies it's a suitable meal replacement for healthy kids who are fussy eaters.

Sustagen Kid Essentials, which claims to be a "nutritionally complete" supplement, was recently launched via an extensive marketing campaign including TV ads.

Accredited practising dietitian (APD) Chloe McLeod says that while supplements are suitable for some children, such as those struggling to receive adequate nutrition, seeing a GP or an APD is the best first step in such circumstances. McLeod says different food types and textures are essential for kids, but that teaching your child to rely on supplements at an early age may have a negative impact on their eating habits later in life. **KATE BROWNE**

Small savers profit in Vic

Media coverage of our report on kids' savings accounts certainly had an impact. In reaction to our criticism of fees and confusing conditions, Bank of Melbourne (as St. George Bank is called in Victoria) has now waived all fees on its Incentive Saver account for children. The bank will also refund any fees paid on the Incentive Saver account by children since the bank's launch on 25 July 2011. Not so lucky are little savers who bank with St.George in other states, as the bank was unable to tell us whether it was going to follow suit. See *CHOICE* May 2012, or head to choice.com.au/kidsbankaccounts. **UTA MIHM**

With the Lytro LFC, you can select where the focus point should be after taking the photo

LYTRO LIGHT FIELD CAMERA (LFC)
PRICE $US399–499
CONTACT lytro.com

★★☆☆☆

A new focus

The Lytro Light Field camera has camera reviewers around the world excited about a novel feature – it lets you choose a focus point after taking an image.

This means you'll no longer be disappointed after taking a photo and finding your camera has focused on the background rather than the subject you intended.

Now for the negatives: our test found it can be difficult to use, as the touchscreen is sometimes unresponsive and the zoom control requires a number of actions to go from wide to tele mode. It produces low-resolution images with significant noise and artefacts, but with large file sizes. The camera is also slow to react to changes in exposure.

Another drawback is you're restricted to using an Apple computer or the Lytro website if you want to process or share your images – and once you've downloaded them, there's little you can do other than rate the image or fiddle with the focus point.

CHOICE verdict

This camera is a long way from being a must-have, but it does point the way to a future free of misplaced focus.

The Lytro isn't a practical replacement for a compact camera – yet. If you collect cameras, however, the Lytro could just be an interesting addition to your collection as an example of a potential game changer for consumer photography.

CHRIS RUGGLES

Testing times

Approximately 50% of women who develop cervical cancer have never had a Pap smear or have not had one in the last five years, and women aged between 20 and 24 have the lowest Pap smear-screening rate, according to South Australian Cervical Screening Program data.

SA Health also said that some young women who have had the cervical cancer vaccine seem unaware of the ongoing need to also have regular Pap smears.

KATE BROWNE

90%

The percentage of cervical cancers that can be prevented if a Pap smear is had every two years

WHOOPS

In *CHOICE* June 2012, page 22, when comparing the pricing of the new iPad here and overseas, we listed the price of the tablet in the United States as $US599. This price excluded US state-based taxes, which are added to the price at the point of purchase.

Member spotlight

Introducing CHOICE member Karen Ingleby, an executive assistant who is always renovating and enjoys living a fit and active life with her husband, Scott, and dog, Cuba.

Why did you join CHOICE?
For sound, honest, unbiased consumer advice from an organisation I trust.

What area/s of CHOICE Online do you view first and why?
I go straight to the test reports for the products I'm looking to purchase.

Have you made any CHOICE recommended purchases?
Yes, a mattress, hairdryer and dishwasher.

Do you recommend products to family and friends?
I recommend CHOICE more so than products.

Which CHOICE campaigns have been the most important to you?
Banking-specific campaigns.

Has there been any product that you wish you had checked with CHOICE prior to buying?
Unfortunately, the one product that I didn't check prior to purchase was a washing machine – an Ariston 8kg AQ9L29U from Harvey Norman (still in storage) – which I regret greatly.

Tell us about your CHOICE experiences, become our next Member in the Spotlight! Send us an email at inthespotlight@choice.com.au.

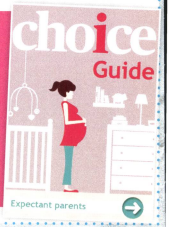
Help steer CHOICE

If you've ever thought of getting more involved in CHOICE but weren't sure how, here's your opportunity. CHOICE is calling for voting member applications. Voting membership is offered to all CHOICE Plus members and CHOICE members of five or more continuous years. Voting members are the organisation's stewards and we welcome their input and involvement in our campaigns. For more information, go to choice.com.au/about-us/how-we-are-run or email us at member@choice.com.au.

CHOICE Guide: Expectant Parents

When it comes to baby products, beautiful designs, cute patterns and bright colours are important, of course, but what really counts is safety. Get your free CHOICE Guide for Expectant Parents and let the experts help you plan for your bundle of joy. It includes a handy checklist of what you definitely need for your baby, what's nice to have and what you can do without.

Get your **FREE** copy at **choice.com.au/expectant parents guide**



Go green!

We encourage all CHOICE members to supply us with an email address and mobile number. Help us reduce paper waste by emailing us at goinggreen@choice.com.au. If you can't remember whether you've given us these details before, email us anyway, or call us on 1800 069 552 or (02) 9577 3399 and we'll update your details on the spot.

Support CHOICE in going green and be better informed at the same time.

Lab tours

Are you curious about how CHOICE tests hundreds of products every year? Come to one of our lab tours in Marrickville, Sydney. Upcoming tours will be held on Friday 13 July and Tuesday 14 August. Numbers are limited, so go to choice.com.au/about-us/lab-tours or email us at labtours@choice.com.au to book.

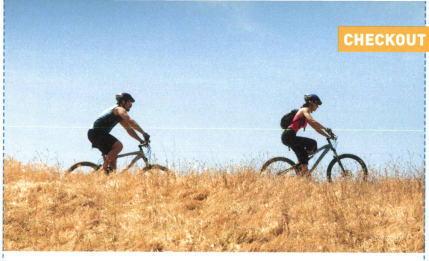
Super response

NSW Fair Trading has responded to CHOICE's first super complaint on electricity switching sites. Super complaints are part of a pilot program with NSW Fair Trading, where CHOICE presents evidence of market failure in any sector that poses significant risks to consumers.

Our investigations into electricity switching sites found that some of the sites were making inflated claims and skewing results, and consumers using the sites weren't necessarily better off.

NSW Fair Trading will try to establish whether switching sites are making claims that breach the Australian Consumer Law, and look at the telemarketing and door-to-door sales activities of energy retailers. For more on the super complaint, go to choice.com.au/energychoice.

KATRINA LEE



More pedal power

Good news for cyclists: recently announced changes to national vehicle safety standards will allow a new range of electric bicycles to be sold in Australia.

The changes – which include extending the power output to 250W and introducing new standards for frame strength and braking performance – aim to give consumers greater choice, while maintaining safety. The National Cycling Strategy 2011-16 aims to double the number of cyclists by 2016, and the government is keen to implement reforms that promote healthy lifestyles, including using electric bikes as an alternative form of transport.

KATE BROWNE

Any way you cut it, calories count

Despite what advertisers and diet books (such as *The Dukan Diet*) say about the benefits of protein-rich diets on weight gain, a recent study by the American Medical Association has proven that no matter what you eat, extra calories equal extra weight.

A group of volunteers was monitored for 12 weeks where researchers made some surprising discoveries. After being given a diet to stabilise their body weight, the volunteers were given an extra 40% of energy a day for eight weeks. The volunteers were divided into three groups and given a low-, average- or high-protein diet. As expected, everyone put on weight, although those on the low-protein diet gained only half of what the normal- and high-protein groups did. However, researchers found all participants gained the same amount of body fat, which means those on the low-protein diet were losing muscle mass while the other groups gained it. The takeaway message? A high-protein diet doesn't prevent weight gain if you overeat.

For more information on this research and other health issues, check out *CHOICE Health Reader*. To subscribe, call us on 1800 069 552.

KATE BROWNE

Too in your face?

Australians have revealed that they're against the use of facial-recognition technology on social media sites such as Facebook. In a Newspoll survey of 1206 people asked whether they support the idea of using this technology to help identify people and tag friends in photos, some 50% were against it while 39% supported the concept. Interestingly, 97% of those questioned said they support it for customs and immigration purposes in airports, and 93% support its use by police in certain circumstances.

PABLO VINALES

The decision is yours

80%
of GP visits are bulk billed

Information on cancer surgery waiting times for public hospitals is now available on the MyHospitals website (myhospitals.gov.au). It shows the median waiting times (the number of days within which half of all patients received their surgery) for selected cancer types in each hospital between 1 July 2010 and 30 June 2011. The information, managed by the Australian Institute of Health and Welfare, helps consumers choose a hospital based on past performance.

KARINA BRAY

41%
of obstetrician visits are bulk billed

$28.63
The average extra cost patients pay if their GP does not bulk bill

$218.42
The average cost per patient if their obstetrician does not bulk bill

Pressed for the very first time?

The ACCC is starting to take a harder line against claims of "extra virgin" on olive oil packaging, starting with a recent $13,200 infringement notice against the Australian Big Olive Company.

The company produces and supplies edible oil under different brand names and reportedly sold almost 3000 bottles of Oz Olio that were wrongly labelled extra virgin between December 2010 and March 2011. If priced at $6 per bottle, Big Olive would have sold $18,000 worth in that time.

The extra virgin distinction is reserved for the first press of only the highest-quality olives. In contrast, the free fatty acid content in one batch of Oz Olio oil was found to be too high. This can indicate that the olives are "old, damaged or otherwise of poor quality" the regulator said. The ACCC reports that it's currently taking a look at "broader concerns" raised by the Australian Olive Association about how olive oil products are described.

ANDY KOLLMORGEN

Shelling out for free range

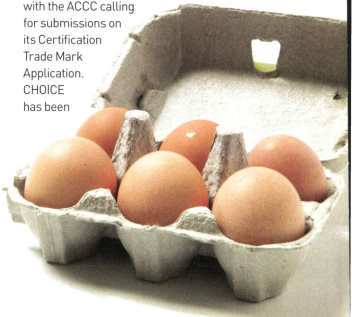
The Tasmanian government is moving to ban cage egg production. In its recent budget, there was an announcement of funding to phase out battery hen farming systems and speed up the process of phasing out sow stalls.

Battery hen farming and the use of sow stalls are examples of intensive farming methods that are being rejected by a growing number of consumers who are looking to buy products with animal welfare claims such as free range and barn laid.

In other free range news, the Australian Egg Corporation's controversial proposed maximum stocking density of 20,000 birds per hectare for free-range eggs has come under scrutiny, with the ACCC calling for submissions on its Certification Trade Mark Application. CHOICE has been fighting for nationally consistent standards around free range labelling and will participate in consultations.

For more on free-range eggs, see page 20.

ANGELA McDOUGALL



FIRST LOOK

Back to basics

Most smartphones can organise appointments, play music and give directions while you drive. But this versatility can sometimes hamper the ability to make and take phone calls.

So if you think smartphones are too clever, the Doro PhoneEasy 615 does the simple things well and delivers some unique security features.

Unlike most other basic or senior phones which work on the GSM (2G) band, this phone works on the widely available 900/2100MHz 3G bands and the 900/1800/1900 GSM bands. When you flip the phone open, large, easy-to-read numbers fill the keypad, and the menu displays recognisable icons for the phonebook, alarm, and so on. The clearly marked buttons make it very easy for sight-impaired users to turn the phone on and off, change the volume or lock the keypad.

For hearing-impaired users, Telecoil (hearing aid) support connects the phone signal directly to the hearing aid, providing clearer audio. The Doro claims a T-coil rating of T4, which means it's suitable with most of the latest hearing aid devices.

In an emergency, the phone can automatically call or SMS a series of up to five nominated numbers when you press the panic button. Our trial user found this feature very useful, but required help in establishing the initial contact list and enabling the feature.

Users will also find an In Case of Emergency (ICE) function where you can save details such as allergies, blood type and vaccinations that may be useful to health-care staff.

And while the handy 3.2 megapixel camera with flash is basic, it takes good-quality photos that can be sent via MMS or saved onto a microSD card.

CHOICE verdict

In its move to provide a simple, yet effective, mobile phone for users who do not require a smartphone, the Doro PhoneEasy 615 pushes all the right buttons at a reasonable price.

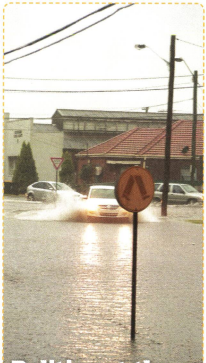
You can choose either Vodafone or Optus on a prepaid plan with $30 of phone credit included in the price. Optus will unlock the phone once you complete an extra recharge, and you have six months to use the credit.

DENIS GALLAGHER

DORO PHONEEASY 615
PRICE $165 (prepaid with Optus or Vodafone)
CONTACT www.doro.com.au

★★★★½

IMAGE: ISTOCKPHOTO



Politics at the water's edge

The insurance industry says the government isn't doing enough to prevent a continuation of the "chaos, destruction, heartbreak and financial hardship" caused by floods since the start of 2011. According to the Insurance Council, government support for flood mitigation in the form of levees and better flood mapping was a paltry $300 per high-risk property in 2011-12.

The Council says that only $26m a year, over the next four years, has been allocated to the National Partnership on Natural Disaster Mitigation. The industry asked for "a significant provision for mitigation infrastructure" in its budget submission and is calling for the building of permanent levees around flood-prone communities.

ANDY KOLLMORGEN

Your Say

We want to hear from you. If your experience is not good, then you can help other CHOICE members avoid scams and rip-offs. If you've had a great response to a complaint you've taken to a manufacturer or retailer, our members want to know about that too! Letters may be edited for length and clarity.

Contact us!

Email us at yoursay@choice.com.au or write to Your Say, CHOICE, 57 Carrington Road, Marrickville, NSW 2204.

Goodwill or good spin?

In September last year, we changed our electricity account with our provider, electing to stop paying a "green choice" premium (for renewable sources of power), which costs about $70 extra a quarter. On the next bill in November, the charge was still there. I rang the provider, and it took a little time to sort it out, but they said it was their fault and they'd fix it and refund us. On the following bill, in February, there was no refund and the charge was still there. Quite exasperated, I rang them again and spent over half an hour on the phone waiting to speak to the right person, only to get the same story – that is, it was their fault and they'd fix it in the next bill. By the next bill, the charge was removed and we were refunded $140, but the refund was called a "goodwill" payment. There was no explanation or apology for the exasperation and time I spent sorting it out, but just a little bit of corporate spin suggesting they're refunding their overcharging through goodwill.

David Salt, Ainslie, ACT

Extras cover doesn't stretch far enough

I am a member of AHM health fund and pay for Super Extras. I have a letter from my doctor stating I would benefit from Pilates due to my osteoporosis, and attend Pilates classes at a physiotherapy practice so I can get the highest-qualified and best medical standard of supervision.

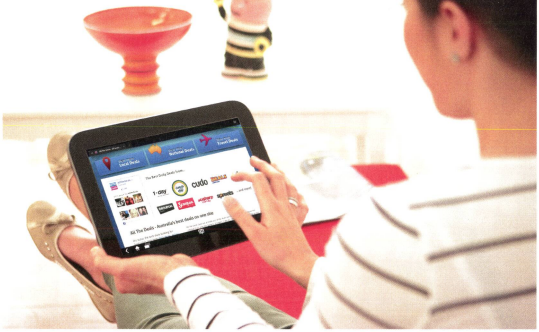
My fund says I am not allowed to claim this under exercise classes in my policy as my teacher is not registered with either of the two industry associations, Pilates Alliance Australasia or the Australian Pilates Method Association – even though my teacher is a registered physiotherapist. I have instead had to claim under physiotherapy. This means I have used up all my entitlements for physiotherapy benefits. I now need physiotherapy for a different issue, and so I am not getting any rebate.

I do not think it is reasonable that I can claim for Pilates classes rebates using a less-qualified teacher, but not for classes from one who is highly trained and best placed to maintain my health, thus reducing the likelihood of injury and subsequent surgery. I have been paying the premiums for Super Extras cover for years and, effectively, I am being deprived of one of my entitlements (either for Pilates/exercise classes or physiotherapy).

Glen Kerridge, Wooloowin, QLD

CHOICE SAYS *Unfortunately, fine print conditions in insurance policies can mean your benefits and cover are less than expected. That's what CHOICE is looking for when we comprehensively review insurance policies for home, car and health insurance.*

In this case, Glen could ask her health insurer for a list of Pilates teachers it does cover, or contact the professional associations to find a teacher who has similar qualifications to her current one. The other solution might be a policy with higher benefits for physiotherapy. Consider shopping around and check the top extras policies in the "Families with older kids" scenario of our new health insurance report in this issue – see page 28.



"I'd like to give Spreets and their ilk a big thumbs down in your magazine"

Thumbs down for 'voucher vultures'

LETTER OF THE MONTH

I recently had a frustrating experience with online voucher company Spreets. I bought a voucher for a fishing charter as a gift for my 83-year-old dad who is a keen fisherman. He had some difficulties redeeming the voucher and so while he continued to negotiate with the charter company, I tried to follow up with Spreets. The only way to contact them is through an online form, which I completed. I received an auto-reply saying that it might take up to seven days to respond.

Twenty-eight days and several follow-ups later, I still have no response. I have instituted dispute proceedings through my bank regarding my credit card payment. I am now in touch with the fishing company and will see what the outcome is. I would be interested to see CHOICE do an update on this growing industry of "voucher vultures" (the internet is full of complaints), and I'd also like to give Spreets and their ilk a big thumbs down in your magazine.

Peta Denham Harvey, Oakleigh, Vic

CHOICE SAYS *CHOICE continues to receive complaints from consumers in relation to daily deals sites, especially around the difficulty of redeeming products and services.*

Peta has done everything she can in this situation in trying to resolve the issue both with the business and the deals website and, finally, by disputing the transaction with her bank.

She could follow this up by contacting her state's fair trading body, Consumer Affairs Victoria (consumer@justice.vic.gov.au or 1300 558 181) to lodge a complaint.

Thumbs

Living in the country has taught us that anything we order comes at a high courier cost. Recently, we had fantastic service from The Printer Wizards of Albury. We ordered four cartridges for our printer which were delivered promptly and at a reasonable cost. Three cartridges were accepted by the machine, but the yellow one was faulty. A replacement was sent at no cost. This also did not work. Another replacement was sent, which also did not work, so the company sent a final replacement, followed by a phone call to see if we were happy with the service. Full marks to The Printer Wizards.

Carole O'Neill, Beechworth, Vic

I had great service recently from Dusk, the candle and homeware store. I found an old container candle that smoked whenever I lit it. I mentioned this on Dusk's Facebook page, looking for ideas to stop the smoking, and I received an email offering to replace the candle if I took it into their store. I live nearly three hours away from the nearest store and do most of my shopping online, so Dusk have instead sent me a brand new candle.

Natalie Richards, Mudgee, NSW

A couple of weeks ago I bought a pair of hiking boots from Allingtons Outpost and wore them around the house for a couple of days to wear them in. The lining in one of the shoes was loose and bundled together above my toes and was really uncomfortable, so I took them back to the shop and they replaced the boots for me. Cheers Allingtons!

Lindy Weber, Salisbury East, SA

Carbon countdown

How green are your carbon offsets? **Zoya Sheftalovich** investigates

A decade ago, British band Coldplay released its hit record *A Rush of Blood to the Head*. Reportedly concerned about the carbon emissions produced by the album, the band decided to offset this by having 10,000 mango trees planted in India. In theory, this sounded great – the trees would absorb the carbon, the mangoes would feed villagers, and Coldplay felt good about their green credentials.

Alas, it was not to be. A few years later, it was reported that many of the mango saplings had died, and that much of the water and money promised to the villagers for caring for the saplings never arrived.

So it's no surprise that when CHOICE asked its members if they had considered offsetting their carbon emissions, several said they were put off because of a perceived lack of accountability and oversight in the industry.

Angela Veerhuis said: "I'd be concerned about paying for it now as I'm not sure about industry regulation. Until I know what kind of planning goes into these arrangements, I won't participate."

> … is it still the Wild West out there?

Ben Archer told us, "[I] haven't and won't, unless I find a company that actually does something to offset. Most claim [to do it], but don't prove it."

Even CHOICE member Simon Reus, who has bought offsets, questioned their efficacy. "I have done it multiple times over the years when flying or hiring a car, and I'm happy to do it, however I have always wondered who regulates these programs to ensure the money goes where it should."

Setting a high standard

The question that begs to be asked is can consumers trust that offsets validated under the two main standards – Verified Carbon Standard (VCS) or Gold Standard (GS), see right – are genuine, or is it still the Wild West out there?

CHOICE spoke with several industry experts who told us that, while offsetting has a sketchy past, the majority of providers in Australia now are legitimate as a result of stringent standards.

Alan Pears is an adjunct professor at RMIT University and a member of the Board of Voluntary Carbon Markets Association (VCMA) and the Advisory Board of the Climate Alliance. He believes standards set in Australia and internationally are providing more

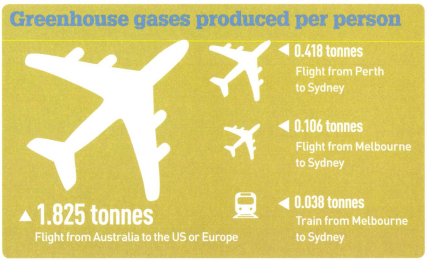
CARBON STANDARDS

The **Verified Carbon Standard** (VCS) is an international standard that ensures carbon reductions meet quality standards and are independently verified, numbered and listed in a central database. To see the life cycle of a carbon offset unit verified by the VCS, go to **choice.com.au/carbonoffsets2012**.

The **Gold Standard** (GS), established by the World Wildlife Fund (WWF), certifies offset projects that demonstrate greenhouse gas reductions and positively impact the economy, health, welfare and/or environment of the community where the project is located.

The **Carbon Farming Initiative** (CFI) is a voluntary Australian Government carbon offsets scheme that enables farmers and land managers to generate carbon credits by reducing agricultural emissions, such as nitrous oxide and methane, and sequestering carbon in vegetation and soils. These credits can then be sold to individuals and businesses wishing to offset their own greenhouse gas emissions.

The Government's **National Carbon Offset Standard** (NCOS) verifies claims of carbon neutrality in Australia. To verify carbon neutral claims, the NCOS specifies that organisations must buy their offsets from projects verified under eligible schemes. These include credits issued under the **CFI**, **VCS** and **GS**, among others.


Greenhouse gases produced per person
0.418 tonnes
Flight from Perth to Sydney
0.106 tonnes
Flight from Melbourne to Sydney
0.038 tonnes
Train from Melbourne to Sydney
1.825 tonnes
Flight from Australia to the US or Europe

certainty in the market. "It is certainly improving," he says. "There are different quality offsets around and, at the moment, the buyer has to beware. It's a matter of making sure the offsets you're buying are certified."

Martijn Wilder, head of Baker & McKenzie's global environmental markets practice and professor of Climate Change Law at the Australian National University, agrees. "There used to be more rogue traders, but there are very few these days as the market is much more regulated and buyers are more educated. There are formal approval bodies and formal registry systems, there is greater government regulation and the ACCC has been active in enforcement."

There used to be more rogue traders, but there are very few now as the market is more regulated

Freddy Sharpe, CEO of offset provider Climate Friendly, says the process for having projects verified under the standards is rigorous. "You need to submit a plan for approval, it must be constructed and then verified [to ensure] it works, then later audited to make sure it's been operating as planned. All those reports by auditors are available [online] on public registries. They're verified by internationally approved auditors – the same ones who validate Kyoto projects."

While some projects verified by reputable standards are riskier than others, the riskier the project the more of a buffer zone that is built into it. For example, Wilder says that for forestry projects that traditionally involve planting trees, there is a risk that trees may be destroyed before the project reaches maturity. For this reason, project operators must plant more trees than necessary to generate their carbon units, and must provide alternative credits to consumers in case of project failure.

Tricky business

There is heated debate surrounding whether Australians ought to buy carbon offsets locally or if they are better off buying internationally as a result of our Kyoto obligation to cut emissions. Many believe that carbon offsetting projects in Australia reduce the amount by which the big polluters need to cut their emissions in order to achieve the Kyoto targets. This may have been true when Kyoto was first signed but that's no longer the case, says Peter Shuey, chair of the Technical Sub-Committee of the VCMA and executive director of ACXargyle, the operator of Australian CO2 Exchange.

Wilder says that the government is not counting an individual's reduction in emissions or carbon offsets as part of its

Greenhouse gases produced by a four-person household*

Transport

4.7 tonnes ▶
Large 4WD to and from work (10,000km annually)

◀ 2.9 tonnes
Medium car to and from work (10,000km annually)

◀ 0.063 tonnes
Bus to and from work (trip distance between 11km and 25km)

◀ 0.006 tonnes
Train to and from work (trip distance between 11km and 25km)

Electronics

◀ 0.268 tonnes
Two hours daily on a high-performance gaming device, such as Xbox 360 or PS3

0.042 tonnes ▶
Two hours daily on an efficient gaming device like Nintendo Wii

0.254 tonnes ▼
Four hours daily on a desktop computer with LCD monitor

0.330 tonnes ▲
Four hours daily on a desktop with CRT monitor

Lighting

0.722 tonnes ▶
20 compact fluorescent light bulbs lit for five hours daily

▲ 3.01 tonnes
20 incandescent light bulbs lit for five hours daily

Heating

2.242 tonnes ▲
Ducted oil heater heating 20% of the house in the evenings only

▲ 8.166 tonnes
Ducted electric fan or radiator heating 20% of the house in the evenings only

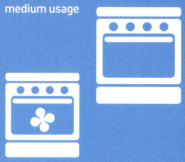
Water

▼ 0.800 tonnes
Medium-sized electric hot water system

0.400 tonnes ▲
Gas storage hot water system

Cooking

0.241 tonnes ▼
Standard oven with medium usage



▲ 0.183 tonnes
Fan-forced oven with medium usage

*SOURCE: The Environment Protection Authority of Victoria's Australian Greenhouse Calculator (see right). The results are for four people living in a medium-sized house in Perth.

compliance with Kyoto. He adds that individuals can feel confident that offsetting their own emissions won't impact on the compliance targets of governments and large companies.

Gourmet or basic?

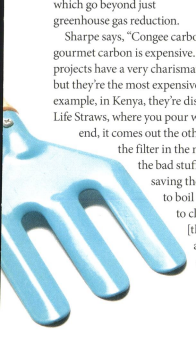
In Australia, where there is no mandatory requirement for individuals to reduce emissions, offsets can be bought voluntarily. Consumers can either buy directly through specialised carbon offset retailers, or choose to offset certain activities, including air travel, through third parties such as airline companies.

There are several types of offsets available to minimise your carbon footprint. Whether you choose to tick a box at the time of purchasing a ticket for air travel or offset your carbon on your own, if the offsets are certified by the VCS or GS, they're likely to be legitimate.

Depending on the type of project, offsetting a tonne of carbon can cost less than $10, while other projects can cost more than $50. Types of projects include methane removal, renewable energy, energy efficiency, industrial gas, forestry, and co-beneficial projects which go beyond just greenhouse gas reduction.

> "Congee carbon is cheap, gourmet carbon is expensive. Some projects have a charismatic story but they're the most expensive."

Sharpe says, "Congee carbon is cheap, gourmet carbon is expensive. Some projects have a very charismatic story, but they're the most expensive. For example, in Kenya, they're distributing Life Straws, where you pour water in one end, it comes out the other end, and the filter in the middle traps the bad stuff. You're saving the fuel used to boil the water to clean it, but [the projects are] very expensive, so it has to cost more per tonne than for a relatively low-cost wind farm."



A smaller footprint

"Offsets are a legitimate product to make use of. But you don't just want to use them as a way of getting rid of your guilt for having a high-emission lifestyle," says Pears.

Will McGoldrick, WWF Australia's Climate Change policy manager, agrees. "The first step should be [to take advantage of] opportunities to reduce the carbon footprint. Households and businesses have low-cost opportunities to reduce emissions. That could be lowering the thermostat on the heater by 1°C, insulating, closing gaps in doors and windows, commuting to work using public transport or choosing a fuel-efficient car. It does make sense, once you've done all those things, to continue to invest in offsetting. What you're demonstrating by doing that is you're taking full responsibility for your emissions."

What about the carbon price?

As a signatory to the Kyoto Protocol, Australia must ensure its greenhouse gas emissions between 2008 and 2012 are no more than eight per cent above the levels they were in 1990. The government has implemented a number of programs that will help achieve this. The carbon price, which is now seeing about 500 of Australia's biggest polluters pay for the pollution they emit, is one way for Australia to reduce its emissions. However, it does not counter the emissions produced by individuals or smaller companies.

Does it add up?

There are several factors to take into consideration when selecting carbon offsets. The Environment Protection Authority (EPA) says that consumers need to consider "additionality", permanence, and monitoring and verification. These factors are accounted for under recognised standards, such as the VCS and GS.

"Additionality is a key concept in evaluating whether or not an offset project leads to real and measurable greenhouse gas reductions. To be regarded as a valid offset, a project must be proven to be 'additional' to what would have occurred anyway," according to the EPA.

"Some emission reductions may not be secure or may involve a range of risk. Offset providers should offer some form of guarantee that purchased credits will be maintained, or customers will be compensated if the project doesn't deliver the expected emissions reductions." ■

How big is your footprint?

To calculate your carbon footprint, head to the Australian Greenhouse Calculator (AGC), released by the Victorian EPA (epa.vic.gov.au/AGC). Adjunct professor Alan Pears, one of the creators of the AGC, says it's a great tool for calculating your emissions and demonstrating ways of reducing them.

"It draws out the way you use your appliances and the kinds of appliances you have, and by doing that it's helping you understand what greenhouse gas emissions are associated with certain activities, and how changing behaviour or technology can reduce your emissions and your bills," says Pears.

A cagey business

What does free range really mean, and are consumers being misled? **Rachel Clemons** investigates

$209.6m

The value of the free-range egg market

The free-range egg business is booming. It has 39% of the egg market in value, and free-range eggs experienced the most growth in that category in the past year, according to *Retail World Grocery Guide 2012*. The free-range label also attracts a price premium over cage and barn eggs. In our survey of CHOICE members (see opposite), the vast majority of respondents said it's essential or important to them that the eggs they buy are free range and that they're willing to pay extra for the label. But are they getting what they're paying for?

There's no official free-range standard, and the label can have any number of meanings depending on the producer.

Certification standards are set by a range of industry bodies including the Australian Egg Corporation Ltd (AECL, the group representing most egg producers), Free Range Egg and Poultry Australia (FREPA) and the Free Range Farmers Association Victoria (FRFA), as well as animal welfare organisations, such as the RSPCA and Humane Society International. Most organic certification standards also address free-range conditions. But the detail and requirements of each standard vary (see table, right).

The label "free range" can have any number of meanings depending on the producer

In 2009, analysis of AECL data by NSW Greens MP John Kaye found that as many as one in six eggs sold as free range were laid by caged or barn hens. Two

STANDARDS COMPARED

CRITERION	Model Code of Practice for the Welfare of Animals:
Is it a requirement of this standard that hens have ready daylight access to the outdoors?	✓
Maximum stocking density – outdoors (birds/hectare)	1500
Maximum stocking density – indoors (birds/square metre)	30kg (appr 18 bir m²) (B
Is beak trimming prohibited?	x

TABLE NOTES * A number of organic certification bodies certify eggs. We've is acceptable only where regular rotation of birds onto fresh range areas occurs a governments. **(B)** To convert kg/m² to birds/m², an average body weight of mature

Chook cam

A number of free-range producers have installed webcams on location at the farms, to show people images of their "happy" hens. Examples include Eco Eggs (ecoeggs.com.au/chookcam), which has a maximum stocking density of 40,000 birds per hectare, and Manning Valley (manningvalleyeggs.com.au/freerangecam), which operates stocking densities from a maximum of 10,000 to less than 2500 birds per hectare.

years later, the Federal Court penalised a WA wholesaler for falsely labelling cage eggs as free range. And earlier this year, the ACCC launched court proceedings against an SA egg supplier, claiming a substantial proportion of its "free range" labelled eggs were from caged hens. Without an official standard for free-range products, consumers are at real risk of being misled by businesses wanting to cash in on the premium that a free-range product attracts.

Our survey

In April, we invited members who buy the food in their household to answer a number of questions about free-range foods and labelling. The survey was completed by 900 people.

For 60% of our respondents, it's essential the eggs they buy are free range, while a further 25% say it's important. A surprising 43% of our respondents rely solely on the words "free range" on the pack to assure them a product is free range – more so than the logo of a certification body (11%) or a logo and the words "free range" combined (28%). More than half our respondents (52%) told us they're willing to pay $3-5 more per dozen for free-range rather than cage eggs.

Welfare state

For 85% of free-range buyers, animal welfare considerations are among the reasons for their choice. So it's not surprising that, for our respondents, the meaning of "free range" strongly relates to the freedom of birds to move around and access the outdoors. According to our respondents, free range means birds are never confined in cages (69% of respondents), birds have more space as a maximum number of birds is allowed outdoor per hectare (66%) and birds have easy access to pasture (65%).

Unfortunately, images of contented, clucking chooks flapping their wings, socialising and roaming around open green pastures don't always reflect reality.

Dense and confusing

The maximum number of birds allowed in outdoor spaces can differ enormously under the various free-range standards, from FRFA's 750 birds per hectare to the 20,000 birds per hectare recently proposed

TRUE FREEDOM

- **Inform yourself about the free-range standards** behind the certifying bodies so you know exactly how egg cartons stamped with their logo have been produced
- **Check the packaging or producer websites** of the eggs you buy for information about their standards – some go beyond the minimum requirements of their certifying body

AUSTRALIAN CERTIFIED ORGANIC	AECL Egg Corp Assured	Free Range Egg & Poultry Australia Ltd (FREPA)	Free Range Farmers Association Inc (Vic)	Free Range Farmers Association of QLD Inc	Humane Choice	RSPCA Approved Farming
Certified Organic (ACO)*	✓	✓	✓	✓	✓	x (D)
0	(C)	Not specified	750	1000	1500	1500 (in outdoor systems with no rotational range management strategies, i.e. a fixed-range area); 2500 (where approved, for systems with rotational range access)
g/m² (approx. rds/m²) (B). ximum 1500 ds/enclosure	30kg/m² (approx. 18 birds/m²) (B)	10 (maximum 1000 birds/enclosure), 9 (maximum 2000 birds), 8 (maximum 3000 birds), 7 (maximum 4000 birds), 6 (more than 4000 birds)	15kg/m² (approx. 9 birds/m²) (B). Maximum 1000 birds/enclosure	7. Maximum 2500 birds/enclosure	5	9 (for sheds with raised floor area); 7 (for sheds without). Maximum 5000 birds/enclosure
	x	x	✓	✓	✓	x

luded ACO here as a point of reference. **(A)** This is the maximum specified for layer hens. For meat chickens, a proportionately higher stocking density than for layers may be used. A subclause reads: "Any higher bird density ere management is undertaken which provides some continuing fodder cover." The interpretation of whether this statement applies to meat chickens only, or both meat and layer hens, is a matter for the state and territory ring hens of 1.7kg has been used. **(C)** AECL has proposed 20,000 under a new certification trademark that is before the ACCC for approval. **(D)** Where an outdoor range is provided, additional standards must be met.

Egg-onomics

AECL claims free-range egg prices could increase if densities are lowered to the stocking densities that some groups are advocating. But right now, a lower stocking density doesn't necessarily translate to a higher price. At Woolworths Online we found a dozen free-range eggs for $5.99 from a producer operating stocking densities ranging from 10,000 to less than 2500 birds per hectare, and 10 free-range eggs for $6.59 from a producer operating with stocking densities of up to 40,000 birds per hectare.

by AECL. This is a 13-fold increase on the 1500 hens per hectare designated by the Model Code of Practice for the Welfare of Animals: Domestic Poultry, the voluntary national standard – though even this figure (and conditions that may or may not apply to it) is open to the interpretation of state and territory governments. According to AECL, 29% of free-range egg production in Australia is from farms that stock at densities higher than 20,000 hens per hectare.

In arguing for an increase to 20,000 birds per hectare, AECL cites research conducted by the Scottish Agricultural College that shows densities greater than the equivalent of 20,000 birds per hectare) "impose some constraint on free expression of behaviour". What's not highlighted is that this isolated 2006 study looked at behavioural responses to different *indoor* floor space allowances in small groups of just five or six hens. In fact, the college told CHOICE that this density wouldn't necessarily be suitable outdoors.

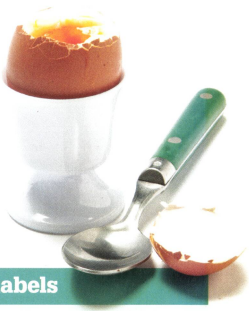
AECL also refers to a survey it commissioned, which asked more than 5000 consumers about their acceptance of varying outdoor stocking densities based on visual representations of these stocking densities. It reported community acceptance of a wide range of free-range outdoor stocking densities from less than 500 to more than 25,000 hens per hectare.

When we asked consumers what they'd consider to be a reasonable maximum outdoor stocking density for free-range egg-laying hens, less than one per cent of respondents supported 20,000 birds per hectare. Stocking densities at the lower end of the scale were more popular (1500 and 750 birds were nominated by 16% and 12% of respondents respectively). However, 65% of respondents said they didn't know. This reinforces our belief that a maximum stocking density shouldn't be predominantly based on consumer research, but rather on a broader body of relevant independent, scientific research in conjunction with consumer research.

CHOICE verdict

Free-range regulation is scrambled, to say the least. Queensland is the only state with a legislated maximum outdoor stocking density, which reflects the Model Code of Practice limit of 1500 birds per hectare, while the ACT has regulations around labelling. Opposition parties in SA and NSW have introduced free-range legislation.

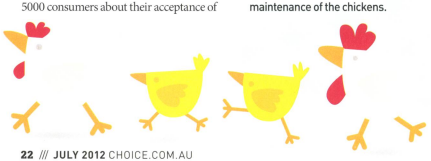
Consumers should have confidence in free-range labelling. Given the federal government's unwillingness to introduce a nationally consistent approach to free range, CHOICE wants to see a Standards Australia process take place involving consultation with a range of stakeholders, including industry, animal welfare and consumer groups. ■



Unscrambling the labels

Barn-laid eggs come from hens housed in large sheds. To certify barn-laid eggs, the RSPCA requires that the laying hens have space for perching and litter for scratching and dust bathing. Limited beak trimming is allowed, and there's no guarantee of access to outdoor spaces, but the birds have adequate space to flap their wings, stretch and socialise.
Cage-free eggs are essentially barn-laid eggs but without the assurance of certification requirements around the space, feeding facilities and maintenance of the chickens.

Free-to-roam claims have been used to promote chicken meat. Last year, the ACCC took action against a number of meat chicken producers and suppliers for misleadingly using "free to roam" to describe their meat chickens. While this implies their barn-raised chickens have substantial space available allowing them to roam around freely, the ACCC alleges the population density of meat chickens raised in barns precludes such movements.
Hormone-free/antibiotic-free claims on eggs mean very little. Hormones haven't been used in chicken (or egg) production since the 1960s. Cage birds are often given antibiotics for disease prevention, but tests have shown the antibiotics don't get into the eggs.



The high cost of health

Premiums aren't the only thing you should consider when shopping for health insurance. **Brendan Mays** and **Uta Mihm** take the pulse of the industry

Nutshell

- We consider all open health insurance funds and make recommendations based on premium prices and the procedures they cover.
- Find out how to avoid additional expenses and get the best-value cover for your needs.

Unfortunately, private health insurance may not cover all your expenses if you need to claim. Costs such as co-payments and gap payments (see Adding Expense to Injury, page 24) can result in hundreds or even thousands of dollars in out-of-pocket expenses. When deciding on which health fund to go with, premiums and policy details are important considerations, which is why we have analysed both hospital and extras insurance policies in Australia. Here, we cover a range of scenarios to help you decide if you need health insurance, and the level of cover that's appropriate for you. We then give recommendations for each state and territory.

This year, we didn't review combined policies because we believe choosing hospital and extras policies separately can provide better value.

ADDING EXPENSE TO INJURY

Claiming for an accident or illness is something most people would prefer not to think about. However, it's not until an insurer is tested that the true value of your cover is revealed. To avoid unnecessary financial pain, pay attention to the following details.

Agreement hospitals Similar to the potential gaps in cover for doctors' fees (see Gap Agreements, opposite), there may also be hospital services that cost more than your insurer will pay. Luckily, insurers also create agreements with hospitals to minimise these issues, and all you need to do is make sure your insurer has an agreement with your private hospital of choice. You can usually find this information on your insurer's website.

Exclusions and conditions Make sure you understand what your policy actually covers, and the terms and conditions that apply. For example, dental is normally only covered under extras, and sub-limits apply. Choosing a policy that doesn't cover procedures such as joint replacement and eye surgery, which are commonly restricted to public-hospital cover only, can leave you disappointed as you won't be able to avoid waiting lists if you do end up needing these services.

Gap agreements Insurance doesn't always cover all doctors' fees, leaving patients with out-of-pocket costs. Insurers remedy this by creating gap agreements, known as **no gap** or **known gap**. The names are self-explanatory, but their application is not. No gap means no cost to you, which is great in theory, but, in reality, your doctor may not agree to a no-gap arrangement. Known gap means you know exactly what you need to pay. Some insurers offer both types of agreement, while some only have no-gap agreements. Check with your doctor to see if they have an agreement with your fund; or check with your fund for a doctor who has signed on to their agreement.

Ambulance Find out if your insurer covers ambulance using the Standard Information Sheets (SIS) available at privatehealth.gov.au. It's a common area of confusion – see Ambulance Explained (page 27).

Gastric banding All top-cover policies now cover gastric banding and other obesity surgery, but most other policies don't. If this is or could be a concern for you, be sure to check these details in the policy.

Extras and combined Our research indicates it's often better value to buy your hospital and extras cover separately (if you need both) as a particular package may not suit your needs. For example, you may need top-level hospital cover but only use extras services infrequently. In this situation, basic extras cover is suitable, and you may find better value in taking out a hospital policy from one insurer and extras from another. Extras policies normally have sub-limits that apply to particular procedures. Consider if taking out extras cover is worthwhile for you, or if it might be better to self-insure.

Pre-existing conditions There's a maximum waiting period of 12 months before you can claim for any illness that occurs prior to taking out a new policy. If you're switching funds, waiting periods already served for comparable benefits are waived (if you switch from a budget to a top policy you'll have to serve waiting periods for the additional benefits and services).

Elective cosmetic surgery (as opposed to plastic surgery for medical reasons; for example, reconstructive surgery after breast cancer). Insurers won't cover procedures performed for cosmetic purposes only.

Surgery by podiatrists Cover for this has typically been excluded in the past; however, more funds now cover it. It's worth considering a policy that covers this surgery, especially for those taking out top hospital cover, if there's little or no difference in cost.

Young singles and couples

Hospital If you think it's unlikely that you'll need to claim but are considering hospital insurance to avoid paying extra tax, we've listed the cheapest policies in the table below. Note that these restrict or even exclude some services. While they may allow you to choose your doctor for the procedures that they do cover, you often can only go to a public hospital and can't avoid waiting lists. The main benefits are that you avoid the Medicare Levy Surcharge (which applies to singles earning more than $84,000 and families and couples earning more than $168,000) as well as a Lifetime Health Cover (LHC) loading. LHC penalises those who take out hospital cover after they turn 31, by adding two per cent to the premium for every year without hospital cover, up to an additional 70%. This means you'll pay more for cover if you later decide you need it.

Extras A basic extras policy provides lower benefits and covers fewer services, but can take the edge off dental bills and other services – if you make use of them.

Prices listed are for singles, but just double the premium for a couple's policy.

RECOMMENDED POLICIES – BASIC HOSPITAL WITH $500 EXCESS PER PERSON (unless otherwise specified)

	Monthly premium for singles ($)								
	ACT/NSW*	NT	Qld*	SA	Tas*	Vic	WA	Pros	Cons
GMF Lite Hospital							58	No excess for day surgery, road ambulance and surgery by podiatrists covered	No cover for heart/eye surgery, pregnancy/IVF, joint replacement, dialysis
GMHBA Frank Basic Hospital (A)	57		62	63	63	63	53		Many services limited to public hospital
HCF Hospital Advanced Savings ($450 excess)		48						No excess for accident or day surgery, ambulance covered	Many services limited to public hospital
health.com.au Basic Hospital		50						Private room covered, ambulance covered	No cover for heart/eye surgery, pregnancy/IVF, joint replacement, dialysis
HIF GoldStarter Hospital ($200 excess)	67		67	67	67	67	61		No cover for heart/eye surgery, pregnancy/IVF, joint replacement
Medibank Private Basic Hospital		47						Private room covered, ambulance covered	Many services not covered or limited to public hospital
NIB Public Hospital ($400 excess)	66				60		59	Ambulance covered	Cover only for public hospital

TABLE NOTES *Ambulance costs covered by state government or included in premium. **(A)** GMHBA also operates Fit Health Insurance, Frank and RACT; we've recommended the cheapest products. Other products offered under each brand vary in price, but can also provide value. See also **USING THE TABLES** on page 28.

RECOMMENDED POLICIES – BASIC EXTRAS

	Monthly premium for singles ($)																	
	ACT/NSW	NT	Qld	SA	Tas	Vic	WA	All therapies max annual benefit ($)	General dental max annual benefit ($)	Major dental	Optical	Physiotherapy	Chiropractic	Psychology	Acupuncture	Massage	Ambulance
GMHBA Bronze Extras	25	28	25	28	28	28	25	1770	1000	(A)	✓	✓					
HIF Saver Options	25	25	25	25	25	25	25	1221	750 (B)		✓	✓	✓		✓	✓	✓
Peoplecare Bronze Extras	21	21	21	21	21	21	21	1870	500		✓	✓	✓			✓	✓

TABLE NOTES (A) Combined limit with general dental. **(B)** No limit for preventative dental. See also **USING THE TABLES** on page 28.

IMAGE: ISTOCKPHOTO

Young families and mature couples

Hospital If your family is young and healthy, and you're not concerned about illness, a hospital policy with a high excess but which provides top cover will likely offer the best value. We include mature couples without dependants in this category too, as these policies provide broad coverage but are relatively inexpensive and budget is often a key issue for seniors and pensioners. If you don't like the idea of paying an excess, see Families With Older Kids, page 28.

Extras If you want better coverage but still want to keep your costs down, consider a mid-extras policy. Unless you use your extras benefits all the time, one of these policies will probably offer the best value.

Prices we've listed are for couples and families; singles can halve the premium.

Tip

Choose the highest hospital cover you can afford, even if it means adding an excess. Cover for more procedures is generally more valuable than saving on premiums with a mid- or low-level policy.

RECOMMENDED POLICIES – TOP HOSPITAL WITH AN EXCESS OF $1000 PER YEAR (unless otherwise specifie

	Monthly premium for a couple/family ($)							
	ACT/NSW*	NT	Old*	SA	Tas*	Vic	WA	Pros
AHM Top Hospital Level 5 ($1000 co-payment)		166						Good overall gap cover
Bupa Top Hospital Cover		144						No excess for children
Central West Comprehensive Hospital ($400 excess)	232						219	Prepayment and direct debit discounts, good overall gap cover
GMF Complete Hospital					250			Prepayment discount, no excess for day surgery, good overall gap cover
GMHBA Frank Best Hospital (A)	230		248	247	248	248		
GMHBA Gold Hospital Level 2 (A)							200	Direct debit discount
GMHBA Platinum Hospital Level 2							205	Direct debit discount
HCF Top Plus ($900 excess)				251				No excess for children, accidents and day surgery, best overall gap cover
HIF Gold Hospital ($800 excess)	232		232	232	232	232	211	No excess for children and day surgery, prepayment discount, good overall gap cover
HIF GoldStar			253	253	253	253		No excess for children or day surgery, prepay discount, good overall gap cover
Latrobe X3 Hospital CoverWise			247	247	247	247		Prepayment and direct debit discou
Medibank Private Top Hospital		137						No excess for children, good overall gap cover
Queensland Country Private Hospital			245					No excess for children five years and younger, good overall gap cover

TABLE NOTES *Ambulance costs covered by state government or included in premium. **(A)** GMHBA also operates Fit Health Insurance, Frank cheapest products. Other products offered under each brand vary in price, but can also provide good value. See also **USING THE TABLES** on

RECOMMENDED POLICIES – MID EXTRAS

	Monthly premium for a couple/family ($)										
	ACT/NSW	NT	Old	SA	Tas	Vic	WA	All therapies – Max ($/ person)	General dental – Max ($/ person)	Major dental – Max ($/ person)	Optical
AHM Family Extras		85						5480	500	750	✓
AHM Lifestyle Extras		77					84	4130	500	750	✓
Bupa Silver Extras					95			5700 (A)	No limit	1000	✓
CUA Silver Extras	72		82	82		70	72	3740	1000	(B)	✓
GMHBA Silver Standard Extras	65	70	65	70	70	67	65	3170	1000	(B)	✓
HBF Essentials Standard	91	91	91	91	91	91	91	4090 (A)	No limit	500 (C)	✓
Health Partners Silver Extras	89	89	89	89	89	89	89	3060 (A)	No limit	500 (C)	✓
Medibank Private Top Extras 55			82		78			3750	800	500	✓

TABLE NOTES (A) Total does not include no-limit items. However, these were considered when analysing policies. **(B)** Combined limit with **(C)** Unlimited endodontic. **Max** Maximum annual benefit. See also **USING THE TABLES** on page 28.

urgery by podiatrists restricted

urgery by podiatrists restricted
o ambulance cover

oad ambulance only

urgery by podiatrists restricted;
me services have a 24-month
nefit limitation period; no
nbulance cover
rgery by podiatrists restricted;
me services have a 24-month
nefit limitation period; no
nbulance cover
urgery by podiatrists restricted;
o ambulance cover
urgery by podiatrists restricted

ivate room costs $70/day;
rgery by podiatrists restricted;
o ambulance cover
urgery by podiatrists restricted;
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d RACT, we've recommended the
ge 28.

Chiropractic	Psychology	Acupuncture	Massage	Ambulance
✓	✓	✓	✓	✓
✓	✓	✓	✓	✓
✓	✓	✓	✓	✓
✓	✓	✓	✓	✓
✓	✓	✓		✓
✓	✓			✓
✓		✓		✓
✓	✓	✓	✓	✓

l dental.

AMBULANCE EXPLAINED

Ambulance expenses are not covered under Medicare. Ambulance cover is typically provided with hospital insurance (and sometimes extras), but not always, so check your policy. If you live in Tasmania or Queensland, the state government covers ambulance costs, and in NSW/ACT ambulance cover is included in hospital cover. In all other states and territories, pensioners receive free ambulance cover or a discount. In some states, even if you don't want health insurance you can still join the state's ambulance service for ambulance cover. If you have health insurance, check what type of ambulance cover you have. Some policies cover hospital transfers (for example, from a public to private hospital). There may be special conditions for air and sea ambulance, or if you require an ambulance when interstate. In Victoria, for example, it costs $3353 for the first hour if you need helicopter air ambulance. With costs like this, it's important to consider ambulance cover when choosing a policy.

DOLLARS FOR DENTAL

As part of the 2012-13 federal budget, the government is injecting more than $500m into dental health care over four years.

A large part of this package will be used to provide treatment for the 400,000 people on the public dental waiting list over the next three years. Other measures include the development of a National Health Oral Promotion Plan and a subsidy to the National Dental Foundation to coordinate further pro-bono work by dentists for the most disadvantaged Australians.

The Australian Health and Hospitals Association has been campaigning for universal dental health care for the past seven years and welcomes the package. "Australians on waiting lists for dental care will benefit from this Budget package, which delivers a substantial boost for public dental services," says CEO Prue Power. "This will greatly help improve both their dental health and quality of life as well as improving productivity and reducing hospital admissions."

Prognosis – not good enough

According to the Private Health Insurance Ombudsman's (PHIO) latest *State of the Health Funds Report*, there was a significant increase in complaints over the past year.

There were 3070 complaints to the ombudsman, which represented a 17% increase on the complaints received in 2009-10. Complaint increases were mainly in the areas of general service issues, postponements in payment and level of cover disputes. However, this included only a minor rise in the number of higher-level complaints needing a more thorough inquiry.

PHIO received 30 complaints from consumers about a compulsory fee to access TV and Wi-Fi services, which was introduced by a large hospital provider. The fee was imposed on patients whether they used the service or not.

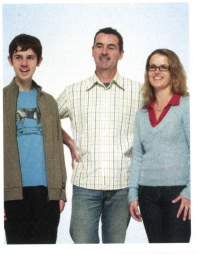
The ombudsman also received 57 complaints about patients not being informed about out-of-pocket costs by hospitals, 39 by doctors and four by other providers.

If you have a problem with your health fund or a service provided by your doctor or hospital, contact them to try and resolve the situation first. If that fails, then contact the ombudsman at phio.org.au or on 1800 640 695.

Families with older kids

Hospital Having active children and more members in your family can mean you're more likely to have to claim. For this reason, those who fall in this category are typically better off with low or no excess top-level hospital cover. If budget is an issue, most of the policies in the table below are also available with an excess at a lower premium. The top hospital policies highlighted below are from funds that provide gap cover that is close to or better than the industry average.

Extras We recommend families with older kids consider an extras policy with high policy limits. The top-extras policies below have above average sub-limits and cover a wide range of services, including orthodontics. ■



Premium prices?

Premiums listed in our tables do not include the 30% rebate that applies to singles earning up to $84,000 and couples and families earning up to $168,000. For more information on rebate changes, see CHOICE April 2012, page 28.

RECOMMENDED POLICIES – TOP HOSPITAL COVER (NIL EXCESS)

	Monthly premium for a couple/family ($)								
	ACT/NSW*	NT	Qld*	SA	Tas*	Vic	WA	Pros	Cons
AHM Top Hospital		225							Surgery by podiatrists restricted
Central West Comprehensive Hospital	260						248	Advance payment/direct debit discounts	No ambulance cover
GMF Complete Hospital						357	293	Advance payment discounts	No air ambulance cover
HCF Top Plus				306		350	298	Best overall gap cover	Surgery by podiatrists restricted
Health Partners Gold Hospital			347	347	347	347		Direct debit discounts	Surgery by podiatrists restricted
Medibank Private Top Hospital	317	199	353	340	343	354			Surgery by podiatrists restricted
Peoplecare Private Hospital			345	345	345	345			
Queensland Country Private Hospital			338						
Westfund Classic Hospital	314		314		314				

TABLE NOTES * Ambulance costs are covered by the state government or included in premium. **USING THE TABLES** Prices for couples are normally the same as for family policies; singles prices are half family prices. Where there is no premium price in a particular state, the policy may still be available, but was not recommended. Maximum annual benefits in the Extras tables are per person. For extras, you should also consider the per-policy limits and sub-limits that apply to individual items (we consider these when scoring policies), especially if you have more than one person on a policy.

RECOMMENDED POLICIES – TOP EXTRAS

	Monthly premium for a couple/family ($)															
	ACT/NSW	NT	Qld	SA	Tas	Vic	WA	All therapies – Max ($ / person)	General dental – Max ($ / person)	Major dental – Max ($ / person)	Optical	Physiotherapy	Chiropractic	Psychology	Acupuncture	Massage	Ambulance
Medibank Private Top Extras 70		94			90			7525	No limit	1000(B)	✓	✓	✓	✓	✓	✓	✓
Peoplecare Gold Extras	125	125	125	125	125	125	125	9285(A)	No limit	2650 (C)	✓	✓	✓	✓	✓	✓	✓
St Lukes Super Extras	101	101	101	101	101	101	101	9150	1000	1500	✓	✓	✓	✓	✓	✓	

TABLE NOTES **(A)** Total does not include no-limit items. However, these were considered when analysing policies. **(B)** Combined with endodontic **(C)** Unlimited endodontic. **Max** Maximum annual benefit.

The right fit

When it comes to exercise, who should you go to for the right help, motivation and advice? **Karina Bray** finds out

Most Australians aren't doing enough exercise to meet the minimum requirements for good health. If you've never really been active, or have an injury or illness that makes exercising difficult, it can be hard to know where to start. Or perhaps you're a regular exerciser and ready to take things up a notch or two, but lack the motivation or know-how.

With a range of experts in the area of exercise to choose from, it's not always clear which one is right for you and what you should expect. As a starting point, exercise experts fall into two broad categories: those with a health and medicine perspective and those with a fun and fitness approach. Which type you choose depends on your needs. If you have health problems or injuries, you're better off visiting an exercise physiologist or physiotherapist, but if you're healthy and just want to tone up or improve your performance, you could try a fitness professional.

In this article we introduce you to the main players in the area of fitness and exercise.

If you have health problems or injuries, visit an exercise physiologist or physiotherapist, but if you're healthy you could try a fitness professional

Fitness professionals

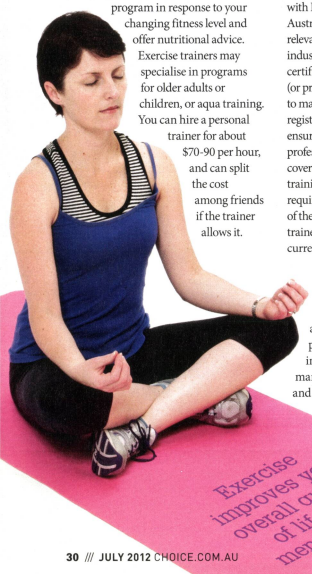
There are plenty of fitness professionals including gym instructors, personal trainers, group exercise leaders and yoga teachers who can help you get fit and tone up. Generally, they're best suited to people with no health conditions or disabilities for whom exercise is a low-risk activity.

Fitness professionals undergo training through the vocational education and training (VET) system, with approved courses delivered by TAFE institutes and private colleges. They learn about human anatomy and physiology, biomechanics (body movement), posture and flexibility, nutrition and exercise physiology. Training programs vary greatly in the length of time it takes to qualify for an award. For instance, through TAFE ▸

it takes one year to qualify as a personal trainer, while through private colleges it can take as little as seven weeks.

The minimum training level is Certificate III, which can be completed in as little as two weeks and qualifies the recipient to be an exercise or gym instructor. They can plan, lead and instruct basic exercise programs and activities for improved aerobic fitness, flexibility and strength, and perform fitness assessments for individuals.

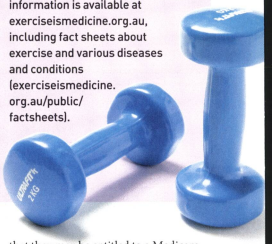
The next level up is a Certificate IV, which qualifies the recipient to be a fitness trainer, the most common type being a personal trainer. A personal trainer can design and deliver an exercise program to help you achieve your goals. They can help motivate you, assist you with technique (efficiency and safety), monitor your progress, adjust your exercise program in response to your changing fitness level and offer nutritional advice. Exercise trainers may specialise in programs for older adults or children, or aqua training. You can hire a personal trainer for about $70-90 per hour, and can split the cost among friends if the trainer allows it.



Exercise is medicine

Clinical research has consistently shown that exercise, at the correct intensity and duration, decreases your risk of disease (such as cancer), chronic health conditions (such as cardiovascular disease, diabetes, hypertension, arthritis and osteoporosis) and obesity, as well as improving overall quality of life and mental health.

Exercise is Medicine Australia is an initiative from ESSA and the American College of Sports Medicine, and aims to get doctors prescribing exercise – via qualified allied health professionals – for prevention, treatment and management of many chronic diseases. More information is available at exerciseismedicine.org.au, including fact sheets about exercise and various diseases and conditions (exerciseismedicine.org.au/public/factsheets).



Many fitness professionals are registered with Fitness Australia or Physical Activity Australia. In order to register they need relevant qualifications and a current industry-approved senior first-aid certificate, with continuing education (or professional development) credit points to maintain registration. Importantly, registration through these organisations ensures the person has public liability and professional indemnity insurance, so you're covered for injuries or other mishaps when training with them. While most gyms require employees to be registered with one of the bodies, if you're hiring a personal trainer outside a gym, check they're currently registered.

Exercise physiologists

Accredited exercise physiologists (AEPs) are university-trained allied health professionals who provide exercise therapy and lifestyle interventions for the prevention and management of chronic disease, injury and disability. They are relatively new to the health profession, and many people don't know much about them – or that they may be entitled to a Medicare-funded exercise program with an AEP.

As members of the health care and medical sector, AEPs approach exercise as health professionals, as opposed to fitness instructors or personal trainers who approach it from a sports and recreation perspective. AEPs use exercise in clinical practice as an integral part of your health care plan, treating people with a diverse range of health conditions including depression, cancer, osteoporosis, obesity and diabetes.

Working closely with your doctor, an AEP will devise a self-management program for you to treat or manage your health condition/s. After an initial consultation to develop an exercise plan, it's likely that you'll have a few more sessions over the months, with occasional visits as necessary thereafter. Some AEPs also conduct classes and group sessions designed for specific patient groups at their practice.

Exercise physiologists undergo at least four years of university training in exercise science, covering biomechanics, physiology, psychology and nutrition. Undergraduate degrees may be called a Bachelor of Health Science or Applied Science in exercise science, or a Bachelor of Exercise and Sports Science.

Candidates with an undergraduate degree in human movement studies or similar can qualify as an exercise physiologist at postgraduate level with a Masters in Exercise Physiology. With the appropriate qualifications and experience, exercise physiologists are eligible to join Exercise & Sports Science Australia (ESSA), the representative and accrediting body for exercise physiologists and sports scientists. You can find or check the credentials of an exercise physiologist on ESSA's website (essa.org.au).

with the Physiotherapy Board of Australia in order to practise in Australia. They may also be a member of the peak body for physiotherapists in Australia, Australian Physiotherapy Association (physiotherapy.asn.au).

The cost of an initial consultation typically ranges from about $65-85, while subsequent consultations cost a little less. Classes cost about $30, but can range from less than $20 through to $70 or more for small groups or one-on-one sessions. Rebates are available through

the Australasian College of Sports Physicians.

A sports medicine doctor has typically qualified as a GP, then also undergone further training in diagnosing and coordinating the management of acute or chronic musculoskeletal or sports injuries. Sports medicine doctors may work in conjunction with physiotherapists and massage therapists, or refer you to other specialists such as radiologists and orthopaedic surgeons.

Exercise, at the right intensity and duration, lowers your risk of disease, chronic health conditions and obesity

As allied health professionals, exercise physiologists offer a Medicare rebate for up to five sessions per year (which is generally sufficient) to people with certain conditions upon referral from a doctor. Their services may also be covered under WorkCover, the Department of Veterans' Affairs and most private health funds. Out-of-pocket costs vary – some bulk bill, so there's no cost to you, while others charge a fee – so check when you make an appointment.

Physiotherapists

Known primarily for providing passive manual and manipulative treatment and rehabilitation after injuries and other trauma (including surgery), physios also provide recommendations for active exercise. Apart from one-on-one work, they may offer group sessions for Pilates, core stability and strength training, or for specific groups such as people with incontinence, osteoporosis, back pain or pregnant/postnatal women. If you've been seeing a physio for an injury or disability, they may prescribe an exercise program as an adjunct to therapy, or as a management or treatment tool in its own right.

Physiotherapists undergo a minimum four years of university study to obtain a Bachelor of Physiotherapy or a Bachelor of (Applied) Science in physiotherapy, while graduates in related disciplines can study physiotherapy at postgraduate level. Physiotherapists must be registered

private health insurance companies, but check which physio services are covered, what the rebate is and your annual limit with your insurer. Some physio services for people with certain conditions can be bulk billed on Medicare with a doctor's referral, so ask your doctor if you qualify.

Sports physicians or sports medicine doctors

A sports physician is a medical practitioner who has gained specialist standard qualifications in sport and exercise medicine and who holds the qualification of Fellow of

Sports scientists

University-qualified sports scientists are usually employed by sports institutes, professional sporting teams and even amateur enthusiasts, or in a research capacity by universities. They devise training programs for optimum performance, including preparation, recovery and psychological aspects of performance, while applying knowledge and techniques from many areas, including sport physiology, motor control and development, biomechanics, skill acquisition and nutrition.

Their undergraduate studies are in exercise science or human movement studies, with postgraduate specialisation in sports science. ESSA is the accrediting body. ■

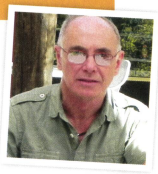
READY TO JUMP IN?

If you're ready to start exercising but haven't been physically active for a while, see a doctor first if you:

- are over 40
- are left very breathless or suffer from chest pains after moderate physical activity
- often faint or have spells of severe dizziness
- think you might have heart disease or your doctor has said you have heart problems
- have certain heart disease risk factors, such as smoking, being overweight, high blood cholesterol or high blood pressure
- are pregnant.

Getting creamed

Foreign exchange is rarely a straightforward transaction. **Andy Kollmorgen** draws on a savvy CHOICE member's research



CHOICE member Robin Boyle compared forex rates

You may have noticed the Aussie dollar has been delivering a nice bonus on overseas transactions in recent years, especially during its long run above parity with the US greenback. For globe-trotting Australians, our currency was worth about 44% more in both euros and US dollars in April this year than it was three years earlier.

That's a lot of extra buying power, but it doesn't take into account the fact that most banks and other moneychangers rake a fair bit off the top during the foreign exchange process.

You've probably also noticed that the exchange rate announced in the media – called the mid-market, or wholesale, rate – isn't the same as the one you end up getting when you make a transaction. A fitting term for the gap between the exchange rate your financial institution pays and the one applied to your overseas purchases or withdrawals (in addition to any fees) is the "cream off", and it varies according to the type of transaction or payment card in question, as well as which moneychanger you use. If you've ever changed money at an airport booth, you know what it means to get creamed.

Why do consumers keep getting the short end of the stick? Because the complexity of the cream-off makes it seem unavoidable. It's not easy to know how much financial services providers are pocketing by way of the foreign exchange process.

It's not easy to know how much service providers pocket by way of the foreign exchange process

Robin Boyle, a CHOICE member since 2003 and a former Deakin University lecturer in statistics and financial mathematics who now lectures at RMIT, contacted us with a trove of research on the topic. We worked with Boyle to frame the larger issue by zeroing in on some cases in point and

identifying a few options that can help you avoid being taken to the cleaners.

Rate check

Boyle compared the exchange rates of the big four banks for the euro (€), pound (£) and US dollar on the same day and found that three – ANZ, Westpac and NAB – had exchange rates that were about 4.5% higher than mid-market rates for cash and travel cards, not including fees. Commonwealth Bank (CBA) transactions were about 5.3% above mid-market rates for cash and travel cards. Boyle reported that the respective differences on 24 April 2012 (see below) were about the same as in a rate comparison exercise he undertook in February.

If you withdrew cash overseas using a debit card on the test dates, the fees and charges made matters even worse. A withdrawal from a CBA savings account or debit card while overseas would have had you out of pocket by 11% more than the mid-market rate ▸

CONVERSION COSTS

Robin Boyle's table below provides some examples that illustrate the difference in rates and fees, with 28 Degrees MasterCard giving the best deal and Travelex at Sydney Airport offering the worst on the day the rates were analysed. Boyle used the CBA as an example of the big four banks in general, although the CBA exchange rate was somewhat worse than the others on the day Boyle tested when it came to cash or travel money cards.

EXCHANGE

Cost of 100 units of currency at exchange rates offered on 24 April 2012 in Australian dollars – including fees and charges	£100	€100
MID-MARKET RATES*	$ 156.96	128.21
28 Degrees MasterCard (credit or pre-loaded cash withdrawal)	156.76	128.10
CBA MasterCard (credit)	161.39	131.88
CBA Travel Money Card – reload	168.25	137.41
OzForex for international money transfers	173.18	144.32
CBA Debit Card cash withdrawal overseas	176.58	145.14
CBA for international money transfers	188.25	157.83
Travelex cash –Sydney Airport	196.16	160.81

*SOURCE: xe.com

KEEPING THE CREAM

Determining the cream-off factor for a range of currencies using every financial product or service available in Australia is only useful on the day it is done due to the constantly changing rates.

The best option Boyle found on 24 April 2012 was GE Money's 28 Degrees MasterCard – a recent CHOICE Award winner for Best Travel Money Card (see *CHOICE*, April 2012). It applies the MasterCard exchange rate with no fees or charges, and can be used as a travel card with pre-loaded currency or a traditional credit card.

Other payment options take a healthy cut but don't cream off nearly as much as some travel money cards or foreign exchange booths at airports. Foreign currency transactions and cash withdrawals using a CBA MasterCard, for instance, cost consumers only about three per cent more than the mid-market rate, even after you add the fees.

For bank-to-bank transfers, OzForex was a better alternative than the CBA. The local foreign exchange service came in only two to three per cent higher than mid-market rates, although the transfer minimum is $2000.

for €200, and about 17% more for €50 once the fees were tacked on.

To test the extreme end of the exchange market, we teamed up with Boyle to obtain a quote over the phone from one moneychanger at Sydney Airport. It would have cost you $86.40 for €50 on the day we tested in April as a result of their miserly exchange rate and minimum commission of three per cent, while the exchange at the mid-market rate would have cost $64.10.

Transferring small amounts of money bank-to-bank via the CBA offered another extreme example. A €50 transfer would have cost $89.92 – or 40.3% more than the mid-market rate on the day we tested, including fees.

Hide and seek

Boyle's number-crunching exercise found that, on the days he tested, the big four banks applied different exchange rates depending on the transaction option, and the rates varied widely from the mid-market rate.

Getting to the bottom of which rates, fees and charges will be applied was a tall order for a financial mathematics expert, let alone the average consumer. As both CHOICE and Boyle discovered, the average bank customer service rep also seems to be in the dark. The ones we spoke to could not clearly explain the foreign exchange rates applied by their respective institutions.

Bank websites can also be misleading. Some provide a currency converter tool, but it may not factor in other fees and charges, which only widen the cream-off gap. ■

WHAT'S THE REAL RATE?

In the slippery world of foreign exchange, the banks make it too hard to work out the cost of a transaction in Australian dollars and figure out the exchange rate you'll end up paying. One straightforward alternative for consumers is to choose a financial product or service that offer exchange rates as close as possible to mid-market rates, with minimal extra fees, commissions or charges (see Conversion Costs, page 33). XE.com and the RBA are two well-established sources that publish mid-market rates against which you can measure the rates on offer, but always be sure to check for fees as well.

Money, money, money

James Dimond's experience illustrates the foreign-exchange confusion faced by many consumers. "I had to book accommodation in Quebec City for a trip in July," he tells CHOICE. "I have an everyday ANZ Visa debit card that I use in Australia and an ANZ Travel Card that I have previously used overseas. My question to ANZ was simple: which card would be cheaper for me to use? The customer service representative kept implying it was the travel card, as I would avoid the currency conversion charge.

"If I used the Visa debit card, I would pay a currency conversion fee of three per cent, but that transaction is processed according to Visa's everyday consumer exchange rates. On the day I checked, $1 bought me $1.008 Canadian dollars ($C). Therefore, my $C1397.42 purchase on my Visa debit card will cost me $1427.92 in Australian dollars.

"If I had processed the same transaction on my travel card, I would have avoided the currency conversion fee, but the transaction would be processed at a currency conversion rate that applies to the travel card, which is different from the Visa rate. When I checked, ANZ confirmed that $1 would buy me $C0.9507 using the travel card. So, while I would have avoided the three per cent currency conversion fee, I would have been screwed to the tune of five per cent by ANZ on the currency conversion rate. The cost of my $C1397.42 purchase on the travel card would have been $1469.88 – $42 more than on my everyday debit card. That's a scam."

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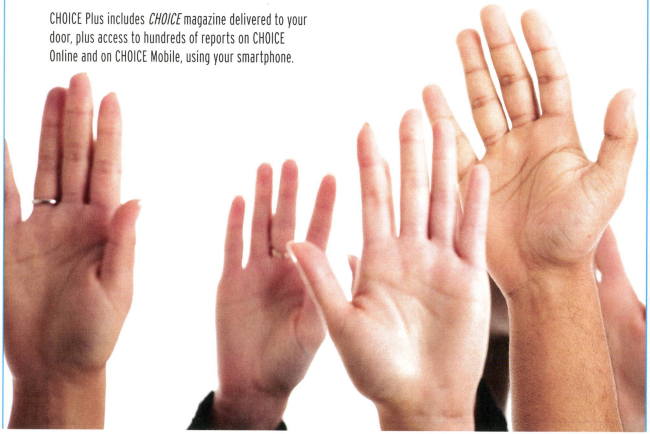


To upgrade, call us today on **1800 069 552** (Mon-Fri 9am-5pm EST)

Diary note: 1 July

The beginning of the new financial year sees the introduction of a number of reforms aimed at helping consumers

The first day of July 2012 signals not only the start of the new financial year, but also when a series of consumer reforms for which CHOICE has campaigned kick into action. While not everything we'd like to see will become reality, there are a few good starts and improvements for consumers. We outline a few key changes here.

Energy price hike

Electricity prices will increase for those on regulated tariffs in some states, starting this financial year. In all states except Victoria, government-appointed agencies set the standard retail price for electricity – the regulated tariff. In states with competition, retailers can offer "market contracts".

- To find a better deal, visit the federal government's new national energy price comparison site at energymadeeasy.gov.au.
- Go to choice.com.au/electricityplan for our guide to shopping around for a new plan.

Better credit cards

Improved disclosure rules for credit cards are part of our Better Banking Campaign (see choice.com.au/betterbanking), and the reforms due to kick off this month are a big win for consumers and another reason to make sure you've got the right card.

As of 1 July 2012, all credit card providers must:

- refrain from offering limit increases, unless you agree to receive them.
- provide monthly statements that show how long it will take to repay the entire balance if you only make minimum repayments.
- provide clearer details on the ins and outs of interest-free periods.

All new credit cards must include:

- standardised key fact sheets to simplify comparing offers.
- the capacity for consumers to nominate the credit limit.
- a ban on over-limit fees, unless you have agreed that your lender can charge you such fees.
- notifications if you exceed your credit limit.
- repayments to the most costly aspect of your credit card debt (such as cash advances) first to reduce debt faster.

FUTURE OF FINANCIAL ADVICE – SOFT ROLLOUT

Will the launch of the Future of Financial Advice (FoFA) reforms this month mark a real turning point in the way Australians get their financial advice? We certainly hope so. After more than a decade of CHOICE investigations and campaigns aimed at taking conflict of interest out of the financial advice payment model, we see the reforms as a long-overdue overhaul. Over the next 12 months, financial advice firms will have the opportunity to voluntarily embrace the reforms before compliance becomes mandatory in July 2013. Search for "FoFA" on our website for details on the reforms.

Single form switch-ability

From this month it should be easier to switch your transaction account to a new bank and get a better deal. The new switching regimen falls short of fully fledged account number portability, but it will allow your new bank to do the legwork in transferring direct debits and credits from your old bank.

The reform targets a longstanding impediment to account switching, and the plan is simple on paper. Your new bank will be responsible for obtaining a list of your automatic payments over the past 13 months from your old bank, then you can decide which ones you want to switch. Signing a single form provided by the new bank authorises transfer of your automatic payments and withdrawals.

Just like that, you'll be able to say goodbye to banks that charge excessive fees or pay paltry interest. Or, at least, we hope so. We'll be watching to make sure this new consumer right doesn't go wrong.

WHAT A CARBON PRICE MEANS FOR YOU

Five hundred of Australia's biggest carbon emitters will pay $23 for every tonne of carbon released, starting this month. Research carried out by CSIRO and AECOM has found the carbon price will see average household living expenses increase by $9.10 per week, and that it will add 0.6% to inflation in 2012-13 (an extra 6c for every $10).

- Go to yourcarbonprice.com.au for more information on how a price on carbon will affect your cost of living.
- Go to cleanenergyfuture.gov.au to find out if you'll receive assistance and, if so, how much.
- Beware of any scam artists. If you're eligible for household assistance, you do not need to apply for it in order to receive it.

Health getting costlier

Starting this month, the rebate for hospital and extras insurance is being trimmed down for singles who earn more than $84,000 and couples and families who bring home more than $168,000. At the same time, higher-income earners who don't have hospital insurance will now face a Medicare Levy Surcharge (MLS) of up to 1.5% of income. Our story (see *CHOICE* April 2012 or log on to choice.com.au/healthsatisfaction) explains why getting hospital cover is usually cheaper than paying the MLS for singles making over $84,001 and couples earning over $168,001.

WORDS: KATRINA LEE, ELIZABETH MCNESS AND ANDY KOLLMORGEN

The parent trap

Making anxious first-time parents feel guilty is big business, as **Kate Browne** discovers

So you've just had a baby or found out you're having one. Either way there's a lot to look forward to – first smiles, first steps and first words. What also comes with a baby is a big change in lifestyle and your shopping habits, too.

Australians spent $4.38bn on baby products last year, and the segment is predicted to grow – concrete proof that new and expectant parents are fair game when it comes to the marketplace. While there's no doubt shopping for the new little person in your life can be extremely enjoyable (and often even more so for equally excited friends and relatives), among all the marketing hoopla how can new parents or parents-to-be determine what's essential, what's nice to have and what's unnecessary?

Baby steps to the shops

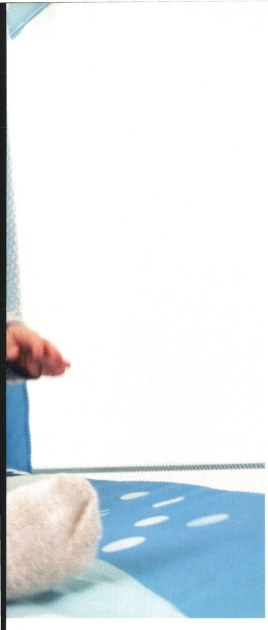
Having a baby is an experience that can involve opening your wallet – a lot. After all, when there's a new addition to your family they'll need clothes, somewhere to sleep, maybe something to travel in and, as they get older, solid foods. But when does enough become enough?

A quick flick through pregnancy magazines or a visit to one of the enormous babies and children expos highlights the power of marketing

Nutshell

According to kidsafensw.org, the most common injuries to children under 10 are:

- as car passengers and pedestrians
- from drowning, house fires, scalds, poisoning, falls from heights or bicycles
- from nursery furniture
- from in-line skates or skateboards.



NO BABIES WERE HARMED DURING THE TAKING OF THIS PHOTO

when it comes to parenthood. From the basics, such as cots, strollers and clothes, to the extreme – think knee pads for babies learning to crawl and crash helmets for toddlers learning to walk – the array of products available is mind-boggling. Then you have a range of surveillance devices to ensure your baby is under watch 24 hours a day, as well as products promising that with their purchase your baby will sleep, eat and/or develop better.

Consumer psychologist (and new dad) Adam Ferrier says that the babies and kids market segment has unique emotional qualities attached to it: status, safety and nurturing. "These are all very powerful things to build a brand on," he says. "For parents, there's a genuine need for approval and to do the right thing. Because you are so inexperienced at being a parent, and there is a massive discrepancy between your actual and your ideal self, that's something marketers can play into."

Ferrier also says that compared with the babies and kids market overseas, it's still in its infancy in Australia. "It's the tip of the iceberg here. There's a lot more to this market and what can be made of it."

Robin Barker, registered midwife and early childhood nurse and author of acclaimed Australian baby-care book *Babylove*, says that while there are plenty of things on the market for babies (and kids) that parents really don't need, advertisers and marketers like to imply otherwise. "It's full-on for a first-time mum the first time she's hit with all this stuff," she says. "There are so many brands out there and they are all working hard to make you feel guilty."

Guilty as charged

Dr James Best is a Sydney-based GP who specialises in babies and children and is the author of an upcoming book, *Kidsense*. He says that the guilt and anxiety levels of parents he sees are on the rise, particularly when it comes to what they think they should be doing – and buying – for their children.

Best says that where once parents would have learned from "the village" and other parents, today they're more likely to learn from marketing, the internet and advertising. "Many parents I see, particularly with their first child, are absolute sitting ducks in all kinds of respects," he says. "You can't help but want to care for your child – you can't resist it – and marketers know that. What the marketing implies is that you must be perfect, you must do everything and tick every box. "Your child must do every activity, too. What if they miss the chance to learn how to play the piano? The marketing implies you've got to do it or you're a failure as a mother. You go into shops and see a vast array of guilt-driven messages thrown at parents. People are provided with so many choices that even if they're smart and well-educated they'll start making illogical choices.

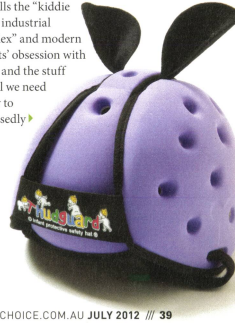
$4.38bn

The amount Australians spent on baby products in 2011

"As an example, you'll see parents tying themselves up in knots to provide their baby with perfect organic meals when something out of a jar would be just fine. But then they'll go and buy something such as an amber teething necklace, which is a potential choking hazard. It's easy to lose perspective."

Safety complex

Lenore Skenazy, US-based author of the best-selling book *Free-Range Kids*, tours the world speaking about what she calls the "kiddie safety industrial complex" and modern parents' obsession with safety and the stuff we feel we need to buy to supposedly



There are things for babies that parents just don't need, but advertisers and marketers imply otherwise

"Ergonomically designed" knee pads for babies learning to crawl

protect them. "The market these days supports the idea that somehow our kids are too vulnerable, and that we are too inept to keep them alive without a phalanx of stuff no other generation in history ever needed," she says.

"There is a onesie [jumpsuit] that monitors your baby's breathing and sends you a text. There are baby monitors that allow you to check on your baby via a special camera, and helmets and harnesses to help them learn to walk. These are the sorts of things that went from the special needs market to the mainstream children's market.

"The marketplace has taught us that the babies won't 'work' on their own – that you need to buy stuff to allow them to work. As soon as you implant that fear in a parent you can extract money from them."

Proceed with caution

So how do parents avoid the marketing guff and work out what's really necessary? Barker says there are a few basics that babies really need (see below), and beyond that you should let commonsense prevail. "If it seems too good to be true, it probably is."

Products promising to induce sleep or stop crying particularly irk Barker. "It's a shame when a mother takes her child to a pharmacy and says that the baby is crying. But instead of being told 'that's what babies do', the pharmacist might try to sell her some kind of product for colic or wind that we know won't work."

She is equally dismissive of the vast range of kid-specific foods, drinks and personal care products available in most supermarkets. "A baby can eat full-strength yoghurt from the very beginning, so they don't need special baby yoghurt. Equally, babies over the age of 12 months don't need special toddler formula or milk – they can go straight onto regular cow's milk."

However, Barker does concede that the lure of the market is more than many can stand. "It's full-on, and I'll be the first to put my hand up and say I'm a willing and happy consumer, too. But when it comes to baby products I really feel that less is more. You have to have your antenna up, and never forget that advertising is advertising." ■

Parental priorities

When it comes to parenting, Dr James Best says parents need to know where to put their priorities.

SAFETY

What's worth worrying about "Car seat restraints, bike helmets, protection from serious diseases and illnesses, and an awareness of dangers such as falling from heights, drowning and burns."

What's not "Worrying excessively about household germs or child abduction and the products that promise to protect kids from these things. This is where a parent's anxiety can be totally misplaced."

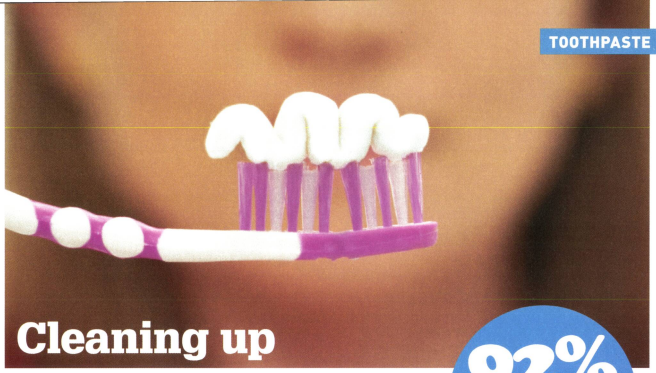
DEVELOPMENT

What's worth worrying about Getting down on the floor and playing with your child, active listening, role-playing. "They need your attention and time. This is how they learn, and the best person they can learn from is you." Reading and talking is how children learn social and speech skills, and how to interact.

What's not Any kind of program, course or product that promises to do that. "Babies and children don't need to do a course or use some product – they just need you."

For more on what's a must-have, a nice-to-have and what's best avoided, go to choice.com.au/expectantparentsguide to download our free guide.

For practical safety advice without the hard sell, go to kidsafe.com.au.



Cleaning up

Elise Dalley checks out toothpaste claims and finds the market is not as clean as you might think

92%
The percentage of the Australian toothpaste market controlled by Colgate Palmolive and GlaxoSmithKline

Walking down the dental care aisle in the supermarket, consumers must wade through "advanced formulas", "multi-action" pastes, "extreme-clean" products and even "micro-cleaning crystals" when deciding what to buy. Toothpaste, the ubiquitous daily essential, is an example of market segmentation at its most successful.

Although just two companies, Colgate Palmolive and GlaxoSmithKline, control 92% of the Australian toothpaste market, there are certainly more than two products on the shelves. As if regular toothpaste wasn't cleaning teeth sufficiently, we now have whitening, tartar control, sensitive and enamel-lock toothpastes as well as products tailored to children.

"As a dentist, I'm quite amazed when I go through the supermarket aisle and look at just how many toothpastes are on the shelf," says Dr Peter Alldritt, chairman of the Oral Health Committee at the Australian Dental Association (ADA). "How do people choose?"

To help you understand what you should look for in a toothpaste, CHOICE spoke with dental experts and looked at 17 toothpastes to find out if the marketing hype matches up with what the experts say we really need.

Back to basics

From pulverised bones and crushed oyster shells to the modern-day pearly white paste, the role of toothpaste has always been to remove plaque and prevent cavities. Professor Mike Morgan is the head at Population Oral Health and Periodontics at Melbourne University. He says most toothpastes contain essentially the same ingredients and believes very few in the marketplace would actually fail to perform these two tasks.

Toothpaste has two key ingredients, fluoride and a mild abrasive, bound together with thickeners, sweeteners, stabilisers and flavours. While the abrasives can vary – such as calcium carbonate and hydrated silica – they fulfil the same purpose: to polish your teeth and dislodge particles of food caught between them. With fluoride and abrasives found in most toothpaste, brands are constantly searching for a point of difference to market their products. Sensitive toothpaste (see left) is one valid point of difference, but experts we spoke to say many others may not deliver the results their marketing promises.

A SENSITIVE TOPIC

When enamel thins or gums recede, porous dentine – the home of many nerve endings – can become exposed. Sensitive toothpaste is designed to block the dentine tubules and minimise sensitivity when brushing.

Of all the spin-off segments in the oral care market, toothpaste designed for sensitive teeth is the most legitimate, according to both Alldritt and Morgan. While Alldritt is happy to recommend it to patients who need it, he warns it is not a cure for everything and shouldn't be used to cover up more serious problems, such as decay.

White as snow?

Teeth-whitening products are the largest segment in the oral care market. When we examined ingredients in a selection of whitening toothpastes, however, we found none contain a bleaching agent – required to physically alter the colour of teeth. The fine print often qualifies this by promising whiter teeth as a result of stain removal, not an overall whitening treatment.

Of the 13 adult toothpastes we looked at, there was little difference in the active ingredients. All contain fluoride and an abrasive, the same humectant (which helps the paste retain moisture) and sweetener, as well as water, flavour and a lathering agent.

Colgate Advanced Whitening and Woolworths Homebrand Freshmint Toothpaste, for example, contain many of the same ingredients. Both use hydrated silica as the abrasive and the same suspension agent to prevent tartar from clinging to teeth. Although they don't indicate the exact proportion of ingredients in the products, both include fluoride, a stabilising agent and titanium dioxide to give the paste an opaque, white appearance. The Woolworths product also includes a naturally occurring preservative – and is less than half the price of the Colgate "whitening" toothpaste.

White Glo Extra Strength Coffee & Tea Drinkers Formula costs more than three times as much as the Coles Smart Buy regular toothpaste, with very little difference in ingredients. Our analysis of ingredients found both use a calcium carbonate abrasive and fluoride, the same sweetener, humectant and a similar stabilising agent. The main difference seems to be that White Glo also has carnauba wax – derived from a Brazilian palm tree – and rosehip oil. Alldritt, who says teeth can only be properly whitened by applying a bleaching agent over a number of hours, strongly doubts the wax would make any real difference when it comes to preventing stains.

The experts we spoke to say the amount of abrasive in any given tube of toothpaste is capped to protect tooth enamel from erosion, so the cheaper, mainstream products are likely to have the same effect. However, Morgan argues that while cost is a factor in deciding which toothpaste to buy, you should stick with reputable brands as recently, in the UK, some cheaper toothpastes have been found to not contain bio-available (absorbable) fluoride.

Control, protect and mislead

Tartar is the build-up of hardened plaque that can lead to gum disease. Although regular brushing can minimise its build-up, tartar can only be properly removed by a dentist. Of the toothpastes we looked at, almost all contain a tartar suspension agent – the most common being pyrophosphates and xanthan gum – designed to suspend tartar particles in saliva and prevent them from clinging to teeth. Although only three mention tartar control on their

Deciphering the spin

"Micro-cleansing crystals for clinically proven whiter teeth"
Comparing the ingredients with that of regular Colgate, we believe the micro-cleansing crystals must be hydrated silica, which is the abrasive used in many other toothpastes, including Woolworths Homebrand
Colgate
Advanced Whitening

"Extreme clean with micro-active foam for deep-action whitening"
No toothpaste without hydrogen peroxide is capable of physically whitening teeth, with or without "deep action"
macleans
EXTREME CLEAN
DEEP ACTION

"MULTI-ACTION"

packaging, Morgan says most toothpastes will reduce the amount of tartar build-up if used in conjunction with a good toothbrush and regular brushing.

Enamel is the outer coating of the tooth. Although generally much harder than the inner dentine, it can be worn down by excessive scrubbing or acidic foods. Colgate Sensitive Enamel Protect and Macleans Advanced both claim to protect teeth enamel, but according to Alldritt these claims may be a classic example of market trickery. "The best protection for enamel is fluoride," he says. "Enamel is a fluoride, and when exposed to the fluoride in toothpaste, it is like putting a coat of armour on it." The ADA recommends a certain level of fluoride in regular adult toothpaste and the Macleans enamel-lock toothpaste did not contain any more fluoride than Colgate's regular toothpaste.

Traps for young players

From milk teeth to big teeth, sparkling gel to Spiderman, children's toothpastes haven't been left behind in the rush to segment the oral health care market. There are sparkles, coloured stripes and even Wiggles-endorsed products. They're sugar free and include fluoride and abrasives just like toothpastes for adults.

So, how are they different?

As children are prone to swallow toothpaste, the ADA recommends parents avoid giving toothpaste to babies and toddlers up to 18 months and use only low-fluoride formulas for children 18 months to six years to prevent fluorosis (caused by ingesting too much fluoride).

Colgate markets its low-fluoride toothpaste as My First Colgate for children up to six, while Macleans offers Milk Teeth for children up to three years of age and Big Teeth for children over seven. Colgate also offers a big kids' paste – for those six and up – with some clever Spiderman marketing. The ADA's policy on fluoride does not require a specialised toothpaste for children aged over six, so Alldritt argues those "big kid" products are a case of an intermediate market being created. "It is not a problem for the teeth, but it is confusing for parents with so many choices," he says.

CHOICE verdict

According to Alldritt, the most important considerations for maintaining good oral health should be:

- **Fluoride** – the most important ingredient in toothpaste.
- **Regular care** – brushing in the morning and at night with a good toothbrush and soft brushing motion.
- **Flossing** – cleaning in between your teeth to prevent small pieces of food from becoming trapped.
- **Diet** – be mindful that the breakdown of sugars and carbohydrates by the bacteria in your mouth produces acid, which can attack enamel and begin the decaying process. ■

"Micro-wax to prevent staining on teeth enamel"
The micro-wax is carnauba wax, derived from a Brazilian palm tree. Alldritt doubts a coating of wax would remain on the teeth throughout the day to repel stains from food and drinks
COFFEE & TEA
White Glo

Our experts say that most toothpastes offer the same protection as Coles' "multi-action" claims – they all clean teeth, help prevent cavities, remove plaque and reduce tartar
"Multi-action"
coles
Whitening
MULTI-ACTION

Ask the Experts

Got a niggling question our team can help with?

Elise Dalley

I recently bought waterproof wrist housing for my GoPro camera. The product leaked the first time I used it and now my camera is ruined. If the wrist housing was faulty, should the company have to provide me with compensation for my camera?

CHOICE journalist Elise Dalley replies: Under Australian Consumer Law, the wrist housing should be of acceptable quality and fit for the purpose for which it was sold – to protect your camera from water. Consequential damage is covered under the law, meaning if the wrist housing is found to be faulty, the supplier and manufacturer will be responsible for the damage that occurred to your camera as a result of their failure to comply with the consumer guarantees.

What are the differences between LED, LCD and plasma TVs, and is one better than the others?

CHOICE expert Scott O'Keefe says: There are three common ways in which to make a TV picture on a flat panel screen:

- With an array of tiny LEDs – usually referred to as organic LED, or OLED.
- With a screen made up of a liquid crystal grid, called LCD. As the LCD doesn't provide the light itself, it requires backlighting. Traditionally this has been done with fluorescent tubes, but more recently, regular LED light has been used and these models are referred to as LED LCDs.
- With screens made up of cells filled with gas that is energised into a plasma state, commonly known as plasma TVs.

OLED TVs promise to have exceptionally high-quality images and high energy efficiency. LED-backlit LCD TVs will suit most consumers, can offer very good picture quality and are more energy efficient than fluorescent-backlit LCD TVs. Plasma TVs are less expensive to manufacture in large sizes, making them popular for those after a large screen.

Scott O'Keefe

Ask us

Do you have a question for one of CHOICE's experts? Email us at ***asktheexperts@choice.com.au*** *or write to us at Ask the Experts, CHOICE, 57 Carrington Rd, Marrickville, NSW 2204.*

Michael Hohl

We installed 18 solar panels and a 3kW inverter last year at a cost of $16,159, of which we paid $8679 after the government rebate. Our average quarterly bill at the time was about $600, and we were told our installation would just about negate our electricity bills. This has certainly not been the case. Although our bills dropped significantly to begin with, they are starting to progressively increase again. What can we do?

CHOICE expert Michael Hohl says: A system of that size should definitely show a very significant reduction in your power bill – if the system is installed and works correctly.

Based on your power bills, it looks as though the panels have been dying over time. A Queensland Office of Clean Energy spokesperson we contacted agrees that a 3kW inverter should make a significant dent in your $600 bill and suggests you have your panels checked by an independent auditor to ensure they have been installed at an optimum angle and direction.

Lab Tests

Fridges, baby carriers, large TVs and car reversing cameras – they're all on test here

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What did a physio have to say about the baby carriers and slings on test? Find out on page 69

Bubs get to hang out, while mums try out slings and carriers for the best fit

CHOICE. The People's Watchdog

CHOICE'S experienced technical staff puts products through their paces in our own testing laboratories. We use test methods based on Australian standards and develop our own to match the way consumers use a product in their homes. We buy the products we test, maintaining our independence from manufacturers and so we know what you're faced with in the shops. We've checked the models are available at the time we publish. Our recommendations are based on a product's quality and performance, with no hidden bias.

CHOICE Shopper
For the best deal on products where you see this logo, call 1300 360 655. Have the model name and number, the price you've been quoted and your CHOICE subscriber number.

CHOICE Online
Wherever you see a mouse icon, there is more information about this test at **choice.com.au**.

CHOICE Best Buy
Our testers award a product a Best Buy if it delivers high quality at a comparatively low price. Not every test report includes Best Buys.

CHOICE Green Buy
Our researchers award a Green Buy to a product that delivers good quality and environmental performance. Not every test report includes Green Buys.

Finding fault

How can you tell if your fridge is doing its job properly? **Matthew Steen** finds out

Nutshell

➤ *Manufacturers should better design fridges with features that allow consumers to check whether their fridge is keeping correct temperatures.*

Blaming your grocer for your food going off too soon? What if it's not the grocer's fault but your fridge that's not keeping things fresh? Supermarkets have a high turnover and strictly regulated health requirements for food handling and quality, but who checks your fridge regularly – or whether it was damaged during transportation?

Our recommended fridges (see opposite) have better cooling capacity and steady temperatures, but can't be guaranteed to work perfectly if they have a manufacturing fault or are dropped somewhere between the production line and your house. It's quite difficult to tell if this has happened unless you see an obvious sign such as a broken ice tray or large dent on the side.

CHOICE has tested 30 new fridges over our previous four tests, four of which have turned out to have a fault of some kind – a 13% strike rate. But you can't tell if you have such a fridge unless you get it checked by an expert after you've bought it – a costly exercise.

Issues

Our Samsung SRL322MW sample didn't meet the Australian standard requirement for energy testing. Samsung claims this is a faulty sample, so we've bought another for our next test. We'll report on this model in an upcoming issue.

If you keep your fridge closed as much as possible (difficult for those with teenagers) and you start noticing food going off sooner than it should, this is one sign that temperatures aren't as they should be. You can try adjusting the controls to refine the temperature, and you can measure this with a fridge thermometer over time. But you shouldn't have to bear any of these costs.

We'd like it to be easier for consumers to quickly check their fridge is keeping the correct temperatures. Accurate thermostats on a digital reading and/or simple error messages are two possible solutions. Other digital display suggestions, such as "door opened (X) times in past 24 hours – keep door closed for better temperatures!", would help maintain better food quality and keep your energy costs down. Few fridges on the market do this well, aside from those with simple alarms to close the door. We look forward to seeing manufacturers improve the quality of their fridges from production to end of life, helping prevent food wastage along the way.

WHAT TO LOOK FOR

A **chiller** is important for storing meat, fish and poultry at a safe temperature for longer. If you choose a fridge with this feature, the chiller's temperature should be close to zero and ideally have a separate temperature control.

Crisper Look for a well-sealed crisper drawer to keep vegetables fresh. Check that the fridge's air outlets don't blow onto it, as this will dry food out faster – a good crisper means you don't have to put your fruit and vegies in plastic bags.

A **dairy compartment** is convenient for keeping butter and hard cheeses slightly soft.

Rollers are useful for moving the fridge easily in order to clean behind it. It should also have adjustable feet (or rollers) for levelling the fridge. Four rollers are better than two, provided they have brakes or adjustable feet to secure the fridge in place.

Fresh food shelves should be easy to remove and replace, and the range of shelf positions should suit your needs. Can you stand soft-drink or wine bottles in the door shelves, for example?

Removable shelves Being able to remove all the shelves when the door is open at 90° is important for access and cleaning especially when the fridge has to be positioned with the door hinge next to a wall.

Door hinge Be sure to buy a fridge with a door hinge position that suits your kitchen layout. If you tend to move house a lot, opt for a door/hinge that is reversible (can be switched to swing from right to left or left to right), though you may have to purchase a kit and/or call in a service person to do it.

WHAT TO BUY

These are the best fridges in each size range, with at least 60% for all aspects of temperature performance except the recommended setting score – you can change this to get a better result. Best Buys are top performers with a good reliability rating that are relatively cheap to buy and run. Where possible, we've included both top and bottom freezers in relevant size categories. There are still no fridges that meet all these criteria in the smallest sizes.

300-380L

Fisher & Paykel
E372B (B) (Dec 11/Jan 12) $1329
Fisher & Paykel
E381T Tasman (T) (May 06) $959
Westinghouse
WBM3700WB (B) (May 09) $1269

381-450L

Fisher & Paykel
E442B (B) (Dec 10/Jan 11) $1919
Fisher & Paykel
E406B (B) (May 09) $1569 Best Buy

451-525L

Fisher & Paykel
E521T Elegance (T) (Nov 06) $1969
Westinghouse
WBM5100WB (B) (Sep 09) $1899 Best Buy

MORE THAN 525L, INC. FRENCH DOOR

Haier
HTD647AS (FD) (Apr 11) $2199
LG GR-L219CSL
(FD) (Dec 11/Jan 12) $3499

SIDE-BY-SIDE

NEW **Haier** HSBS582AS $1599

Month and year indicates *CHOICE* issue in which fridge was first tested. **(B)** Freezer on bottom. **(T)** Freezer on top. **(FD)** French doors.

75%
Haier HSBS582AS

Good points

- Very good for fluctuations
- Very good response to ambient change

Bad points

- No chiller

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		COSTS		PERFORMANCE											
		Price ($)	10-year running costs ($)	Overall score (%)	Freezer	Number of doors	Temperature performance score (%)	Fluctuation score (%)	Range score (%)	Uniformity score (%)	Ambient change score (%)	Recommended setting score (%)	Energy efficiency score (%)	Claimed / measured energy use (kWh/year)
< 300L	**Westinghouse** WTB2500WB	739	887	70	T	2	67	80	70	75	33	85	82	415/403
	# Sharp SJ-222S-SL	747	792	67	T	2	62	70	75	65	36	50	85	391/360
	Westinghouse WTB2300WB	689	887	67	T	2	63	80	70	60	29	80	81	411/403
	LG GN-253VW	699	928	65	T	2	61	45	70	70	58	80	81	435/422
	# Samsung SR215MW	649	757	62	T	2	56	40	70	70	70	60	85	450/344
	# Haier HRFZ-213	499	790	53	T	2	45	65	48	60	5	0	83	375/359
	# Westinghouse WTM2800WB	799	902	53	T	2	45	20	85	50	22	60	83	413/410
	# Whirlpool WRI24UN	749	946	52	T	2	45	10	75	75	28	75	80	410/430
SMALL (300–360L)	**Fisher & Paykel** E372B	1329	1096	81	B	2	81	75	90	70	89	90	81	498/498
	Fisher & Paykel E381T	959	933	79	T	2	77	60	80	85	90	80	85	433/424
	Westinghouse WBM3700WB	1269	1058	76	B	2	74	65	90	75	67	70	82	495/481
	Changhong CHRF310	599	856	75	T	2	73	90	85	70	36	65	85	435/389
	LG GC-305PS	899	1008	71	B	2	68	60	75	85	51	85	82	476/458
	Kelvinator KBM3800WB-R	1109	1155	70	B	2	68	80	55	70	69	50	80	555/525
	Samsung SR364MW	949	955	70	T	2	66	60	70	70	66	70	84	450/434
	# Westinghouse WTM3300WB	989	957	63	T	2	58	50	75	65	39	70	83	437/435
	# Daewoo FR360	799	1019	58	T	2	52	35	90	70	32	90	82	545/463
	# Sharp SJ-339S-SL	967	1008	53	T	2	46	45	55	65	35	50	82	420/458
MEDIUM (361–450L)	**Fisher & Paykel** E442B	1919	1261	78	B	2	78	60	90	85	81	85	79	563/573
	Fisher & Paykel E406B	1569	1230	76	B	2	76	65	90	60	90	80	78	564/559
	Electrolux EBM4300SC	1959	869	75	B	2	72	70	90	55	69	75	88	406/395
	Fisher & Paykel E440T	1769	1087	74	T	2	72	50	85	80	77	85	83	488/494
	Samsung SR432NW	999	1054	74	T	2	72	65	80	75	77	50	84	455/479
	Fisher & Paykel E402B	1269	1234	73	B	2	72	60	85	65	80	80	78	528/561
	Electrolux ETM4407SC	2589	777	72	T	2	68	75	90	65	33	70	90	369/353
	Kelvinator KTM4400WB	1219	1021	72	T	2	69	65	90	70	45	80	84	486/464
	# Midea HD-496FWS	799	1093	69	T	2	66	80	75	65	49	0	82	456/497
LARGE (451–525L)	**Fisher & Paykel** E521T	1969	1091	78	T	2	76	60	85	85	77	80	85	508/496
	Westinghouse WBM5100WB	1899	1157	76	B	2	74	75	85	70	65	55	84	560/526
	Electrolux EBM5100SC	2379	882	74	B	2	70	70	80	65	62	80	89	428/401
	Electrolux EBM5107SC	2849	928	74	B	2	71	70	75	65	70	70	88	428/422
	Kelvinator KBM5100MB	1799	1305	74	B	2	72	80	70	80	57	60	81	589/593
	Westinghouse WTM5200WB	1689	1175	74	T	2	72	75	87	75	53	40	83	518/534
	Bosch KGN53X70AU/08	1599	1078	73	B	2	70	80	75	70	53	60	83	505/490
	Fisher & Paykel E522BRXFDU	2509	1379	72	B	2	70	55	85	70	77	50	79	636/627
	Fisher & Paykel E522B	2029	1412	71	B	2	69	60	80	50	87	80	78	596/642
	# Westinghouse WBE5100SB-R	2379	1267	64	B	2	60	50	90	60	33	80	81	545/576
> 525L & FD	**Haier** HTD647AS	2199	1536	79	B	3	79	90	75	80	65	90	80	690/698
	LG GR-L219CSL	3499	1489	74	B	4	73	80	70	70	64	85	79	750/677
	Electrolux EQE6007SB-NAU	3699	1454	70	B	4	67	40	85	90	85	70	84	616/661
	Samsung SRF801GDLS	4999	1558	69	B	4	66	65	55	75	69	75	80	845/708
SIDE BY SIDE	**# Haier** HSBS582AS	1599	1511	75	L	2	74	80	70	60	82	75	78	637/687
	LG GC-L197STF	2199	1155	75	L	2	74	70	80	70	76	70	81	638/645
	Daewoo FRS-U20ICW	1399	1463	74	L	2	72	60	80	75	74	90	81	650/665
	Haier HSBS562IS	1799	1703	69	L	2	69	85	50	60	88	35	70	743/771

FEATURES								SPECIFICATIONS					
Noise level (dB)	Chiller	Crisper drawer	Dairy compartment	Fresh food shelves / shelf positions	Rollers	All shelves removable at 90°	Door hinge position	Dimensions (cm, H x W x D)	Claimed total volume (L)	Claimed volume, fresh food (L)	Claimed volume, freezer (L)	Contact
43	✓	1	✓	2/7		✓	Rev	150 x 55 x 62	246	167	79	westinghouse.com.au
45	✓	1		2/7			R	139 x 55 x 61	222	166	79	sharp.net.au
39	✓	1	✓	3/7			Rev	139 x 55 x 62	230	161	65	westinghouse.com.au
37	✓	1		2/4			R	161 x 54 x 61	253	179	74	lge.com.au
41	✓	1		2 / 4		✓	R	145 x 57 x 59	216	148	68	samsung.com.au
41		1		3 / 8	✓		R	144 x 55 x 58	213	172	41	haierlife.com.au
38		1	✓	2 / 8	✓		R	155 x 61 x 65	280	209	75	westinghouse.com.au
41	✓	1		2 / 4	✓	✓	R	157 x 55 x 67	241	177	64	whirlpool.com.au
40		2	✓	2/13	✓	✓	R or L	160 x 64 x 74	373	250	123	fp.com.au
45		1	✓	3/18	✓	✓	Rev	160 x 64 x 72	380	283	97	fp.com.au
38		1	✓	2/7	✓		R or L	162 x 66 x 71	365	243	122	westinghouse.com.au
42		2		3/7	✓	✓	R	152 x 61 x 67	300	220	80	changhong.com.au
44		1		2/4	✓		R	173 x 60 x 66	305	183	122	lge.com.au
47		1	✓	2/10	✓		R	172 x 71 x 65	380	267	114	kelvinator.com.au
39	✓	1		2/5			R	169 x 67 x 66	365	245	120	samsung.com.au
38		1	✓	3 / 12	✓		R	172 x 61 x 65	330	253	75	westinghouse.com.au
38	✓	1		2 / 3	✓	✓	R	168 x 67 x 68	353	252	101	www.daewooelectronics.com.au
38	✓	1		2 / 12			R	170 x 60 x 64	339	242	97	sharp.net.au
40		2	✓	3/17	✓		R	170 x 68 x 73	442	307	135	fp.com.au
40		2	✓	3/13	✓		R or L	160 x 68 x 74	404	271	133	fp.com.au
43	✓	1	✓	2/8	✓		R or L	172 x 71 x 71	430	300	131	electrolux.com.au
40		1	✓	3/20	✓		R or L	170 x 68 x 74	447	342	105	fp.com.au
36		1		3/4	✓	✓	R	171 x 73 x 72	434	301	133	samsung.com.au
35		2	✓	3/10	✓		R or L	170 x 64 x 73	403	280	123	fp.com.au
37		1	✓	3/17	✓		R or L	172 x 70 x 75	442	339	103	electrolux.com.au
41		1	✓	3/10	✓		R or L	172 x 71 x 71	431	300	131	kelvinator.com.au
35		1		2 / 11	✓		R	172 x 70 x 70	410	302	108	mideabrand.com
35		1	✓	3/20	✓		R or L	170 x 79 x 74	517	400	117	fp.com.au
39		2	✓	3/20	✓		R or L	172 x 81 x 71	504	348	156	westinghouse.com.au
34		2	✓	2/8	✓	✓	R or L	172 x 81 x 75	510	349	156	electrolux.com.au
32	✓	2	✓	2/8	✓		R	171 x 79 x 62	505	349	156	electrolux.com.au
38		2	✓	2/10	✓	✓	R or L	172 x 81 x 71	505	349	156	kelvinator.com.au
35	✓	2	✓	3/12	✓	✓	R	172 x 81 x 71	520	396	122	westinghouse.com.au
37	✓	2		3/4	✓		Rev	170 x 70 x 75	451	332	119	bosch-home.com.au
34		2	✓	3/17	✓	✓	R	170 x 79 x 74	519	360	159	fp.com.au
37		2	✓	3/17	✓	✓	R or L	170 x 79 x 74	519	360	159	fp.com.au
35		2	✓	3 / 10	✓		R	172 x 81 x 71	510	349	156	westinghouse.com.au
38	✓	2	✓	4/15 (C)	✓	✓	na	177 x 91 x 71	647	423	211	haierlife.com.au
35	✓	2	✓	2/14	✓	✓	na	178 x 91 x 77	610	402	196	lge.com.au
34	✓	2	✓	2/4	✓	✓	na	172 x 89 x 82	602	370	232	electrolux.com.au
33	(A)	2		3/7 (D)	✓	✓	na	178 x 91 x 92	801	433	225	samsung.com.au
38		2	✓	3/9	✓		na	177 x 89 x 75	575	348	227	haierlife.com.au
33		2	✓	3/9	✓		na	176 x 90 x 69	567	353	214	lge.com.au
38	(B)	2	✓	3/6	✓		na	179 x 90 x 73	618	377	241	www.daewooelectronics.com.au
39		1	✓	3/9	✓	✓	na	177 x 89 x 77	560	348	212	haierlife.com.au

For profiles of previously tested models in our What to Buy list, see the CHOICE issue indicated on page 47 or log on to **choice.com.au/fridges**

USING THE TABLE Scores The overall score consists of temperature performance (80%) and energy efficiency (20%). **Temperature performance** This score consists of fluctuations (30%), range (25%), uniformity (20%), ambient change (20%) and recommended setting (5%). **Features** See What to Look For, page 47. **Energy efficiency** is based on the fridge's energy consumption, taking into account its size. **Noise level** These are comparative measurements taken 1m up and 1m away from the fridge during normal running. Fridges can sound noticeably louder as the compressor starts and stops and may make unusual noises during automatic defrosting. **Claimed volumes** This is how much air space the fridge has to cool; less space is available for storage. Use the volumes to get an idea of how big the freezer is compared with the fresh-food compartment. **10-year running costs** are calculated at 22c/kWh. A 10-year period gives a useful indication of the long-term differences between high- and low-energy use – and you should expect your fridge to last at least this long. **Price** Recommended retail, as of April 2012. Many fridges are available in other styles and finishes, at a different price. Some can also be built into cabinets with a door kit that matches your kitchen cupboards. **TABLE NOTES** ✓ Newly tested model. **na** Not applicable – doors are side by side. **L** Left. **R** Right. **Rev** Reversible door. **(A)** FlexiZone drawer can be set as a chiller. **(B)** This chiller was too warm in our tests for optimal storage of highly perishable foods. **(C)** Four half-width shelves. **(D)** Three variable half shelves and one small fixed shelf. **T** Top. **B** Bottom. **L** Left.

3 Force Principle.
Draw up in CAD to get angle of strut
Find intersection with gravity lo
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NOW WE HAVE ALL T
150 kN
FBD
From FP, th

Colour competition

Colour MFPs are convenient, but should you choose inkjet or laser? **Steve Duncombe** takes a look at the contenders

Nutshell

- All MFPs print, scan and copy in one compact machine, with some able to fax as well.
- Colour lasers can cost more to buy but may be cheaper to run than inkjets for high-volume printing.

Multifunction colour lasers are increasingly challenging inkjets for desk space in your home, but whether to opt for inkjet or laser for your next printer is not always an easy decision. Colour laser MFPs generally cost more initially, but can be cheaper to run, costing less over time. In this head-to-head comparison, we look at 24 inkjet MFPs and seven colour laser MFPs to see which offer the best performance, features and value.

Inkjet or laser?

Each category has models that can offer business-level features and performance as well as being a general household printer. Auto-duplexing, wireless networking (Wi-Fi), ethernet (wired) networking and even fax capabilities can be found on both inkjet and colour laser models.

For some people, print quality and versatility will be deciding factors. For example, although colour lasers can produce excellent quality full-colour documents, they only print onto standard-weight smooth plain paper. They don't have the versatility of some inkjet models that can produce lifelike photo-glossy prints suitable for framing. Nor can they image directly onto printable CD/DVD blanks.

If you do a lot of printing you'll probably find a colour laser more cost effective and durable, as they're generally made with a small business or home business in mind.

Counting the costs

At the bottom end of the price bracket, inkjet MFPs cost much less than the cheapest colour laser models. Several inkjet models on test are less than $100 – the cheapest, the HP Deskjet 1050, is just $59 and the Deskjet 2050 $10 more. The most expensive inkjet model on test is ▸

WHAT TO BUY

Our picks are based on the overall score. Best Buys are based on a combination of overall score and running costs.

COLOUR INKJET MFPS

72%
HP Photosmart 7510 e-AIO

Good points
- Equal-highest overall score for inkjets
- Highest print speed and quality score for inkjets

Bad points
- None to mention

72%
Lexmark Genesis S815

Good points
- Joint-highest overall score for inkjets
- Second-highest print speed and quality score for inkjets
- Highest scanning score for inkjets
- Fax capability
- PictBridge support

Bad points
- None to mention

70%
Brother MFC-J825DW

Good points
- Joint-highest printing score total for inkjets
- Joint-highest printing ease of use scores for inkjets
- Joint second-highest overall score for inkjets
- Can print on CD/DVD
- Fax capability
- PictBridge support
- Ethernet support

Bad points
- None to mention

COLOUR LASER MFP

73%
Dell 2155cn

Good points
- Highest overall score
- Highest printing score total for colour lasers
- Highest print speed and quality score for colour lasers
- Second-highest copying score for colour lasers
- Second-highest scanning score for colour lasers
- Ethernet support

Bad points
- No Wi-Fi

70%
HP Officejet Pro 8600 Plus e-AIO

Good points
- Joint second-highest overall score for inkjets
- Low annual ink costs
- Fax capability
- Ethernet support

Bad points
- None to mention

70%
HP Photosmart 6510 e-AIO

Good points
- Joint second-highest overall score for inkjets

Bad points
- None to mention

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$499. By comparison, the cheapest of the colour laser MFPs on test is the Oki MC160n at $377, while prices for the others range up to $1599. But the purchase price doesn't tell the whole story. The cost of owning a printer can change markedly over time due to the cost of regularly replenishing the ink or toner.

We employ an average-use scenario to represent how much a typical user would print. Calculating the ink and toner (consumables) costs based on the average-use scenario, we found that the annual ink cost for the HP Deskjet 1050 and 2050 would be $582 and $587 respectively, while the Oki would cost only $298 to run over a year for the same amount of printing.

Taking into account the purchase price plus consumables, the Oki would cost only $19 more than the Deskjet 2050 in the first year and would be about $600 cheaper to own over three years (see the Costs section in the table below).

			COSTS				PERFORMANCE							FEATURE	
		Price ($)	Toner cost per page ($) (text / graphics / photo)	Annual ink / toner cost ($)	Total cost, first year (buy price + ink/toner)	Total cost, three years (buy price + ink/toner)	Overall score (100%)	Printing score total (%)	Printing speed and quality score (%)	Printing ease of use score (%)	Printing versatility score (%)	Scanning score (%)	Copying score (%)	Auto duplexing	Fax
COLOUR INKJET MFPS	**HP** Photosmart 7510 e-AIO	249	0.07 / 0.32 / 1.22	455	704	1614	72	72	76	58	76	67	74	✓	
	Lexmark Genesis S815	349	0.09 /0.39 / 1.65	596	945	2137	72	71	74	56	87	82	64	✓	✓
	Brother MFC-J825DW	229	0.08 /0.3 / 1.24	463	692	1618	70	73	68	84	94	72	55	✓	✓
	HP Officejet Pro 8600 Plus e-AIO	499	0.01 / 0.15 / 0.73	236	735	1207	70	69	71	59	76	71	74	✓	✓
	HP Photosmart 6510 e-AIO	169	0.07 / 0.29 / 1.14	429	598	1456	70	69	70	64	76	68	74	✓	
	Epson Workforce Pro WP-4540	449	0.03 / 0.23 / 0.93	315	764	1394	69	69	72	64	44	69	67	✓	✓
	HP Photosmart eStation AIO C510	449	0.05 / 0.27 / 1.18	412	861	1685	69	70	67	80	78	66	70	✓	
	Brother MFC-J625DW	179	0.08 / 0.29 / 1.51	529	708	1766	68	73	69	84	85	63	50	✓	✓
	HP Deskjet 3070A (B611)	99	0.07 / 0.29 / 1.01	396	495	1287	68	66	70	58	41	64	80		
	HP Officejet Pro 8600 e-AIO	399	0.01 / 0.13 / 0.73	227	626	1080	68	69	70	61	76	62	66	✓	✓
	HP Photosmart 5510 e-AIO	129	0.07 / 0.28 / 1.04	400	529	1329	68	67	70	58	58	67	75		
	Brother DCP-J925DW	199	0.08 / 0.31 / 1.45	522	721	1765	67	66	63	70	92	75	62	✓	
	HP Officejet 7500A Wide Format e-AIO E910a	249	0.04 / 0.21 / 0.95	331	580	1242	67	65	65	68	58	68	76		✓
	Epson Artisan 730	249	0.11 / 0.41 / 1.92	695	944	2334	66	66	63	71	95	70	60	✓	
	Epson Artisan 837	329	0.11 / 0.41 / 1.91	690	1019	2399	66	67	64	71	95	67	63	✓	✓
	Brother DCP-J725DW	159	0.07 / 0.3 / 1.34	483	642	1608	64	65	62	70	84	69	56	✓	
	HP Envy 110	329	0.09 / 0.42 / 1.24	504	833	1841	63	63	63	62	67	57	66	✓	
	Brother MFC-J6510DW	329	0.03 / 0.23 / 1.14	368	697	1433	62	63	62	61	87	66	55	✓	✓
	Epson Stylus NX430	119	0.06 / 0.4 / 1.22	469	588	1526	62	63	61	73	61	58	62		
	Brother MFC-J430W	139	0.08 / 0.3 / 1.29	474	613	1561	61	60	61	63	42	71	53		✓
	HP Deskjet 2050	69	0.08 / 0.44 / 1.58	587	656	1830	61	60	68	42	4	63	64		
	Brother DCP-J315W	99	0.09 / 0.33 / 1.52	555	654	1764	59	56	56	54	58	73	58		
	Brother MFC-J220	119	0.09 / 0.4 / 2.33	775	894	2444	58	58	59	54	50	67	52		✓
	HP Deskjet 1050	59	0.08 / 0.41 / 1.6	582	641	1805	58	56	65	36	8	56	67		
COLOUR LASER MFPS	**Dell** 2155cn	899	0.05 / 0.32 / 1.44	489	1388	2366	73	72	79	56	24	72	76		✓
	Brother MFC-9970CDW	1599	0.03 / 0.30 / 0.72	288	1887	2463	66	63	67	56	40	70	75	✓	✓
	Dell 1355cn	599	0.11 / 0.28 / 0.83	387	986	1760	66	68	74	54	24	71	52		✓
	HP LaserJet Pro CM1415fnw	749	0.05 / 0.34 / 0.78	327	1076	1730	66	61	64	59	26	75	77		✓
	Brother MFC-990CW	429	0.08 / 0.37 / 2.24	730	1159	2619	64	63	64	57	66	70	61		✓
	Oki MC160n	377	0.05 / 0.28 / 0.72	298	675	1271	62	61	74	23	23	54	75		✓
	HP TopShot LaserJet Pro M275	459	0.06 / 0.31 / 0.97	380	839	1599	55	56	61	43	27	50	54		

USING THE TABLE Price What we paid in April 2012. **Scores** The overall score comprises printing score total (70%), scanning (15%) and copying (15%). The printing score total comprises printing speed scenario of 1000 mono prints, 250 colour document prints and 250 full-colour photo prints over the course of a year. Energy cost figures are not included in the average-use scenario but range up to about send/receive capability. *USB* Direct connection to computer (all models on test have USB). *Ethernet* Wired networking port. *Wi-Fi* Wireless networking. *Bluetooth* Wireless connection to Bluetooth devices. converts scanned text to editable text. **Specifications** *LCD type* Colour means it has a full-colour LCD; mono is single-colour only; touch allows some control by touching the screen. Displays may be text-

WHAT TO LOOK FOR

Connections will usually include a USB port for direct connection to a computer. All printers on test have this, and all the colour laser models and several inkjets also have ethernet for joining a wired network. Most MFPs on test also have built-in wireless networking (Wi-Fi). Network printers can also be used by all computers on the network.

Direct camera attachment for photo printing (without a computer).

Duplexing (automatic double-sided printing) can save you a lot in paper costs and wastage over the life of the printer.

Fax capability lets you send and receive plain paper facsimile documents over a standard dial-up phone connection.

OCR software can take scanned pages and translate them into editable text.

Paper handling on most personal colour laser MFPs includes a multi-size main paper tray, with a maximum size of A4. On the inkjet models this ranges from 50 sheets of A4 paper up to 250, while the colour laser models ranges from 150-300 sheets. Some also have a multipurpose tray, holding between 10 and 500 sheets.

Size Most personal colour laser MFPs are squarish and usually quite a bit larger than the average A4 inkjet model. Some models can appear compact but require more room once the trays are loaded with paper.

Speed is the maximum print output speed of the printer's engine, in pages per minute (ppm). Look for this on the packaging, but don't make a purchase decision based solely on this figure as it can be deceptive. There is no standard for measuring print speed and actual output speed can vary greatly. It can take four times as long to print a colour page as a black-only page as the internal print drum has to revolve four times, once for each colour.

Status panels may include an LCD display with menu options and just plain text or with graphics. A detailed display with paper jam and low toner indicators can be helpful in quickly sorting out problems.

Wi-Fi support is becoming more prevalent these days, with the increasing popularity of laptops, tablet computers and even smartphones.

Windows 7 support is important. Two printers on test require a new driver update to be downloaded and installed. ■

SPECIFICATIONS

Wi-Fi	Bluetooth	PictBridge	Print on CD/DVD	OCR Software	OS support (Win / Win 7 / OS X / Linux)	LCD type (colour, mono, touch)	LCD size (mm, W x H)	Input tray capacity: main / multipurpose (A4 sheets)	Size (cm, H x W x D)	Contact
✓				✓	✓/✓/✓/-	Colour, touch	9.4 x 5.3	125 / na	22.4 x 45.3 x 55.2	hp.com.au
✓		✓		✓	✓/✓/✓/✓	Colour, touch	9.5 x 5.5	100 / na	42.2 x 38.8 x 50	lexmark.com.au
✓		✓	✓	✓	✓/✓/✓/-	Colour, touch	8 x 3.2	100 / na	18 x 42.7 x 51.4	brother.com.au
✓				✓	✓/✓/✓/✓	Colour, touch	9.5 x 5.4	250 / 250	31.4 x 49.6 x 64	hp.com.au
✓					✓/✓/✓/-	Colour, touch	6.8 x 5	80 / na	16.2 x 43 x 58.2	hp.com.au
✓				✓	✓/✓/✓/-	Colour, touch	13.5 x 5.9	250 / 250	46 x 45.2 x 65.5	epson.com.au
✓					✓/✓/✓/-	Colour, touch	15.4 x 8.7	125 / na	25 x 44.8 x 55.2	hp.com.au
✓		✓		✓	✓/✓/✓/-	Colour, touch	8 x 3.2	100 / na	18 x 42.7 x 51.4	brother.com.au
✓					✓/✓/✓/-	Mono	4.4 x 2.8	80 / na	14.7 x 43.5 x 56.5	hp.com.au
✓				✓	✓/✓/✓/✓	Colour, touch	5.7 x 4.4	250 / 250	30.2 x 49.5 x 58.5	hp.com.au
✓					✓/✓/✓/-	Colour, touch	5 x 3.6	80 / na	14.4 x 43.5 x 56.5	hp.com.au
✓		✓	✓	✓	✓/✓/✓/-	Colour, touch	8 x 3.2	100 / na	17.8 x 44.7 x 52.8	brother.com.au
✓		✓	✓	✓	✓/✓/✓/✓	Colour, touch	5 x 3.6	150 / na	28.3 x 59.1 x 71.1	hp.com.au
✓		✓	✓		✓/✓/✓/-	Colour	5 x 4	120 / na	15 x 44.3 x 65.6	epson.com.au
✓		✓	✓	✓	✓/✓/✓/-	Colour, touch	7 x 5.7	120 / na	19.5 x 46.5 x 62.8	epson.com.au
✓		✓		✓	✓/✓/✓/-	Colour, touch	8 x 3.2	100 / na	18.4 x 46 x 51.2	brother.com.au
✓					✓/✓/✓/-	Colour, touch	7.6 x 4.7	80 / 25	9.9 x 42.8 x 44.3	hp.com.au
✓		✓		✓	✓/✓/✓/-	Colour	7.8 x 3	250 / na	25.5 x 53.8 x 62.5	brother.com.au
✓					✓/✓/✓/-	Colour	7 x 5.5	100 / na	29.3 x 39 x 52.4	epson.com.au
✓				✓	✓/✓/✓/-	Colour	3.8 x 2.9	100 / na	17.8 x 44 x 52.8	brother.com.au
					✓/✓/✓/-	na	na	50 / na	28 x 42.2 x 55.4	hp.com.au
✓					✓/✓/✓/-	Colour	3.8 x 3	100 / na	14.8 x 42.6 x 45	brother.com.au
				✓	✓/✓/✓/-	Colour	3.8 x 3	100 / na	14.7 x 41.6 x 45.2	brother.com.au
					✓/✓/✓/-	na	na	50 / na	27.8 x 42.4 x 57.2	hp.com.au
				✓	✓/✓/✓/✓	Mono	7.8 x 3	250 / 250	58.3 x 42.2 x 57.5	dell.com.au
✓				✓	✓/✓/✓/-	Colour, touch	11.7 x 4.8	300 / 500	52.5 x 49 x 53.4	brother.com.au
				✓	✓/✓/✓/-	Mono	7 x 3	150 / 10	33.6 x 41.1 x 50.3	dell.com.au
✓				✓	✓/✓/✓/✓	Colour, touch	7 x 5.2	150 / na	41.5 x 44.9 x 49.5	hp.com.au
✓	✓	✓		✓	✓/-/✓/✓	Colour, touch	10.2 x 4	na / na	18 x 48.5 x 45.8	brother.com.au
				✓	✓/-/✓/-	Mono	7.5 x 2.7	200 / na	42.6 x 40.5 x 56.9	oki.com.au
✓				✓	✓/✓/✓/✓	Colour, touch	7 x 5	150 / na	49.5 x 47 x 42.2	hp.com.au

nd quality (75%), printing ease of use (20%) and printing versatility (5%). **Costs** The annual ink/toner cost is based on an average-use 8 per year for the models on test. **Features** *Auto-duplexing* Double-sided printing without manual intervention; *Fax* includes facsimile *ictBridge* allows images to be printed directly from digital cameras to a printer; *Print on CD/DVD* using printable discs; *OCR Software* nly or include graphics. **Size** includes all protrusions when fully loaded and ready to print. **TABLE NOTES na** Not applicable.

Phone ahead

Mobile network changes will have a significant impact on the next phone you buy, says **Denis Gallagher**

Nutshell

- 850MHz could be your only option if you want to stay with Telstra and do anything other than talk and text.
- Smartphones are becoming homogenised, with the main differences being OS choice, battery life and reception quality.

Feedback from our annual NextG phone test has shown that despite the rise of smartphone ownership reception remains a crucial factor when it comes to choosing a mobile. This year's test of 17 models includes 14 large-screen capacitive touchscreen mobiles, two clamshell mobiles and a BlackBerry. Operating system (OS) choices for smartphones include Apple's iOS 5.1, Android 2.3 or 4.0, Windows Phone 7.5 and BlackBerry.

Smartphone performance, design and affordability have improved to the point where we can recommend several standout models on test (see right).

Going bush

Reception testing was conducted at Oxley Downs in NSW, chosen for its flat topography, and lack of interference from other nearby towers or networks.

Testers Josh and Ben from ***Farming Ahead*** magazine moved away from the tower in 500m increments to determine a point where a call could not be made.

No more 2100MHz 3G for Telstra customers

If you're with Telstra, it's now more important than ever to ensure your smartphone works on the 850MHz frequency, because as of 1 September this year, you won't be able to do much more than call and text if your mobile only works on 2100MHz.

Long-time Telstra customers who use their phone for basic talk and text should not notice a difference, with handsets reverting to Telstra's 2G GSM network for voice calls and SMS. Telstra's 2G GSM network is available in the same locations served by the earlier 3G 2100MHz network.

If you want to find out whether or not your phone will work on Telstra's 850MHz frequency (or Vodafone's 850MHz frequency) visit telstra.com.au/mobile/networks/network_info/check-imei.html. You'll need your mobile's unique 15-digit IMEI number, which you can find by entering *#06# into its keypad.

4G NOT FOR CALLS BUT VERY FAST FOR BROWSING

4G is a wireless broadband technology that delivers high-speed performance to mobile devices. Unlike the NextG or Vodafone 850MHz networks or Optus 900MHz Yes G network it is not designed to improve the reception or provide wider coverage for phone calls. Its primary purpose is to deliver improved performance for devices that go online.

Our tests on some 4G devices showed very impressive speeds when in close enough range of a 4G tower. We achieved speeds approaching the claimed 40Mb/s for the Samsung Galaxy Tablet (see choice.com.au/nextg), and about 36Mb/s for the Samsung Galaxy SII 4G. The HTC Velocity speeds for browsing and downloading were less impressive, but still averaged a very good 30Mb/s. And the HTC performed almost twice as well as the other models for uploading, averaging 1.23Mb/s.

PROFILES

81%
Apple iPhone 4S, $799 (16GB model)

Best Apple option

Whether you love or hate it, there is no denying the iPhone has dictated design in the smartphone industry since its introduction in 2007. The latest iPhone 4S continues the trend, although its 3.6-inch screen (once considered large) is now one of the smallest among our top-performing mobiles.

While features such as Siri voice recognition may be useful for some users, tester Scott O'Keefe was more interested in how the phones on test perform when used for daily tasks such as texting, email and web browsing, and he found the iPhone 4S excellent.

Battery performance for the iPhone 4S is very good and reception on the 850MHz network is excellent, but we found the call sound quality, particularly for people listening to a call from the iPhone 4S, to only be OK.

Best Android options

84%
Motorola Defy+, $599

83%
Sony Experia S LT26i, $599

82%
HTC Velocity X710b, $799

The Android OS, in version 2.3 or 4.0, is available on hundreds of mobiles, so you can choose a handset to suit you. The three top performers in this test, the Motorola Defy+, Sony Xperia S and HTC Velocity, are Androids with different features and functions to consider.

The Motorola earns top marks for its excellent durability, as well as excellent performance in our reception test.

But if you want a large screen, HD video and the ability to carry out video calls, consider the Sony or HTC. Both support DLNA networking, allowing you to use a Wi-Fi connection to enjoy content such as movies, photos and music stored on your home network.

The Sony is one of five mobiles on test to include a near field communications chip (NFC) to support micropayment technology when it's introduced to Australia. Its 12Mp camera is the highest resolution on test.

The HTC is one of two 4G phones on test, with impressive online browsing and downloading performance if you are in a 4G area.

All three mobiles were tested using Android 2.3 OS, but the Sony and HTC can be upgraded to Version 4.0.

80%
Samsung Galaxy Note GT-N7000, $695

Big screen, big battery champion

When the Samsung Note was first released, it attracted criticism for being too big as a phone and too small as a tablet. However, the Note is surprisingly easy to hold in the average-sized hand and is an excellent performer, whether you're browsing on the 5.3-inch screen or using the supplied stylus to make notes or mark up documents.

If your primary reason for buying a smartphone is to make phone calls, you may need to look elsewhere. The size of the Galaxy Note makes it feel like you are holding a book to your ear when talking, and our listening panel found the call sound quality to be only average.

However, the phone really shines when it comes to battery performance, with its 2500mAh battery blowing other models out of the water. In fact, we had to stop the test once we reached a perfect score as the Note just kept going.

OE 163

For information about the mobiles that did not make our profiles list, go to **choice.com.au/nextg**

SPECIAL CIRCUMSTANCES

73%

Telstra Easytouch Discovery 3 T3, $240

This Telstra phone has a T3 rating for hearing-aid compatibility as well as several other features that may appeal to the hearing impaired such as the phone calling out the numbers as you press them and an extra loud ring tone and volume setting.

While its battery and web performance was not as good as the other models on test, its reception performance was equal best.

WHAT TO LOOK FOR

Wi-Fi capability lets you browse the internet using your wireless connection at home or at a Wi-Fi hotspot. Many mobiles on test also operate as a modem (tethering) or router (personal hotspot), allowing you to connect other devices, such as a laptop or tablet, to the internet when you're travelling.

A **front-facing camera** allows the phone to be used for video conferencing when connected to another mobile phone user or computer user with webcam.

Stereo Bluetooth (A2DP) allows you to listen to your music without cables via a pair of Bluetooth stereo headphones, and all models support this feature.

A **capacitive touchscreen** responds to the touch of a finger. All touchscreen models on test use a capacitive screen. Non-touchscreen models on test include the Samsung S5511T, BlackBerry and Telstra Tough 2 and Easytouch Discovery 3 T3.

The **specific absorption rate** (SAR) of the phone indicates the amount of energy per kilogram of body weight absorbed when using the phone as claimed by the manufacturer.

Universal Mobile Telecommunications System (3G) While all phones on test support Telstra's Next G network (850MHz) you need to make it clear which network you'll be using if purchasing a mobile outright. If you aren't buying the handset from a Telstra shop, confirm with the salesperson that the phone supports 850MHz if you're with Telstra or Vodafone, and 900MHz if you're with Optus or other companies such as Virgin Mobile or Amaysim.

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	PERFORMANCE												FEATURES								SPECIFICATION		
	Price ($)	Overall (%)	Reception (%)	Ergonomics (%)	Daily use (%)	Call sound quality (%)	SMS (%)	Email (%)	Web (%)	Durability (%)	Battery life (%)	MicroSD removable memory	Telstra Blue Tick	Flash video playback	NFC	HD video recording	Secondary camera	Wi-Fi 802.11 (bgn)	Internal memory	Screen size, (mm, W x H)	Screen size, diagonal (in)
Motorola Defy +	599	84	93	76	81	58	85	83	83	100	86	✓	✓	✓				✓	2	46 x 82	3.7
Sony Xperia S LT26i (A)	599	83	84	80	79	63	85	83	87	88	100			✓	✓	✓	✓	✓	32	53 x 96	4.3
HTC Velocity X710b	799	82	84	80	81	68	85	83	87	80	84	✓		✓		✓	✓	✓	16	56 x 99	4.5
Apple iPhone 4S	799	81	93	76	81	57	90	90	83	65	84		✓	✓		✓	✓	✓	16	51 x 76	3.6
HTC One X S720e (A)	699	81	81	80	85	70	85	90	87	65	90			✓	✓	✓	✓	✓	32	58 x 103	4.6
HTC Sensation Z710a	599	81	70	80	81	65	85	83	87	100	86	✓		✓		✓	✓	✓	1	54 x 95	4.3
Samsung Galaxy Nexus	699	80	74	80	74	65	85	83	87	86	92	✓		✓	✓	✓	✓	✓	13	58 x 103	4.6
Samsung Galaxy Note GT-N7000 (A)	695	80	74	74	78	50	85	90	87	89	100	✓		✓		✓	✓	✓	16	72 x 114	5.3
Samsung Galaxy SII 4G	768	80	80	80	79	52	85	83	87	91	82	✓		✓	✓	✓	✓	✓	16	59 x 98	4.5
Telstra Active Touch T28	285	80	86	80	79	55	85	83	67	98	79	✓	✓	✓				✓ (C)	2	45 x 76	3.5
Nokia Lumia 800	599	79	86	74	73	53	85	90	67	100	76		✓			✓		✓	16	47 x 81	3.7
Samsung Galaxy SIII	825	79	73	78	78	65	85	90	87	65	97	✓		✓	✓	✓	✓	✓	16	60 x 107	4.8
BlackBerry Bold 9900	899	78	81	66	74	60	80	77	73	100	84	✓		✓		✓		✓	8	57 x 43	2.8
Nokia Lumia 710 (A)	399	78	92	76	73	45	85	90	67	87	76					✓		✓	8	47 x 81	3.7
Telstra Tough 2	269	77	97	66	79	73	75	67	30	100	86	✓	✓						(D)	36 x 49	2.4
Telstra Easytouch Discovery 3 T3	240	73	100	82	69	62	75	50	23	100	70	✓	✓						(D)	37 x 49	2.4
Samsung S5511T	79 (B)	72	100	74	70	58	80	63	20	68	82	✓	✓						(D)	35 x 46	2.2

OS options

Apple's iOS 5.1 is included on the iPhone 3GS, 4 and 4S only, whereas Google's Android OS has an open system, which is available to companies including Samsung, HTC, Sony and Motorola. While version 4.0 is the latest version, many of the current range of Android mobiles are using version 2.3. This can be confusing as the ability to upgrade to version 4.0 is not guaranteed, even for newer models.

The Windows Phone OS (now in version 7.5) is the third significant player. Companies such as Samsung and HTC have Windows Phone devices available, but Nokia has Windows Phone 7.5 on all its new models.

While the BlackBerry once ruled the corporate world as the premier smartphone, it's now the least popular major OS. ■

What about the Samsung Galaxy SIII?

The Galaxy SIII runs on Android 4.0 and manages to fit a large 4.8-inch screen into a surprisingly light package. It includes iPhone-like features such as S Voice (similar to iPhone's Siri) as well as extras including the use of eye recognition to determine when you are reading onscreen or on a phone call (the phone won't go into standby mode if it detects you're doing either). An NFC chip is another handy addition.

However, once you look below the glossy surface, it's hard to suggest the Galaxy SIII is any more impressive than other top-performing Android phones, and its relatively poor reception performance may be an issue if you work in a regional town or area with network congestion. It was also one of three mobiles on test that had issues relating to our durability test (see below).

DURABILITY TESTING ISSUES

Some phones had issues in our drop test (24 drops total with four drops on each of the six sides of the phone) from a one-metre height onto a floor with a 70% hardness level. The HTC One X screen was damaged, but a second sample passed without incident. The Apple iPhone 4S refused to start after the test, but was fully operational a few days later. The Samsung Galaxy SIII incurred damage with broken glass at the bottom of the screen but continued to operate as normal. All were penalised in the durability score as a result.

(W x H)	Camera resolution, Mp	Operating system	UMTS Bands 850 / 900 / 1900 / 2100 MHz	4G	SIM card size	SAR W / kg	Weight (g)	Dimensions, (mm, H x W x D)	Contact
80 x 854	5	Android 2.3 (F)	✓/–/–/✓		mini	1.19	111	109 x 61 x 13	motorola.com
20 x 1280	12	Android 2.3 (E)	✓/✓/✓/✓		micro	1.3	145	129 x 65 x 11	sony.com.au
40 x 960	8	Android 2.3 (E)	✓/–/–/✓	✓	mini	0.92	161	130 x 68 x 12	htc.com
20 x 960	8	iOS 5	✓/✓/✓/✓		micro	1.18	139	116 x 60 x 10	apple.com.au
20 x 1280	8	Android 4.0	✓/✓/✓/✓		micro	0.91	134	135 x 70 x 10	htc.com
40 x 960	8	Android 2.3 (E)	✓/–/✓/✓		mini	1.37	148	126 x 66 x 12	htc.com
20 x 1280	5	Android 4.0	✓/–/✓/✓		mini	0.34	138	136 x 69 x 12	samsung.com.au
58 x 1280	8	Android 2.3 (E)	✓/✓/✓/✓		mini	0.26	177	147 x 84 x 11	samsung.com.au
80 x 800	8	Android 2.3 (E)	✓/–/–/✓	✓	mini	0.5	133	130 x 70 x 11	samsung.com.au
80 x 800	5	Android 2.3 (F)	✓/–/–/✓		mini	0.58	119	115 x 59 x 14	telstra.com.au
80 x 800	8	Windows Phone 7.5	✓/✓/✓/✓		micro	0.94	142	117 x 62 x 13	nokia.com.au
20 x 1280	8	Android 4.0	✓/✓/✓/✓		micro	0.4	132	137 x 71 x 9	samsung.com.au
80 x 640	5	Blackberry 7	✓/✓ (G)/✓/✓		mini	1.12	130	115 x 67 x 12	blackberry.com
80 x 800	5	Windows Phone 7.5	✓/✓/✓/✓		micro	0.7	124	119 x 63 x 13	nokia.com.au
40 x 320	3	BREW	✓/–/–/✓		mini	0.54	114	120 x 53 x 12	telstra.com.au
40 x 320	3	Proprietary	✓/–/✓/✓		mini	1.06	107	100 x 53 x 17	telstra.com.au
40 x 320	3.2	Proprietary	✓/–/–/✓		mini	0.83	106	99 x 49 x 20	samsung.com.au

USING THE TABLE

Scores The overall score is made up of reception (20%), ergonomics (10%), daily use (10%), call sound quality (10%), SMS (10%), email (10%), web browser (10%), durability (10%) and battery life (10%). **Features** See What to Look For, page 56. **Price** Recommended retail, as of July 2012. **TABLE NOTES (A)** Not purchased from a Telstra store. **(B)** Prepaid price. **(C)** Supports b and g speeds only. **(D)** = 200MB. **(E)** Upgradeable to Android 4.0 (ICS) planned. **(F)** No plan to upgrade to Android 4.0 (ICS). **(G)** Available on 900MHz as a separate model. All have airline/offline mode and can be charged via USB. All support Bluetooth 2.1 (A2DP). All can be used as an external drive for storage except the Telstra Easytouch and iPhone 4S. All use micro USB except the iPhone 4S. All support 3.5mm headphones except the Telstra Tough 2, Easytouch and Samsung S5511T. All except the Samsung S5511T have a GPS. The Telstra Tough 2 and Active Touch T28 have an RF antenna port for improved reception, but the reception test was carried out with the handset only. The Motorola Defy +, Samsung SIII, SII 4G and Nexus have RF ports behind the casing and take a patch antenna lead, but there's no official support for this.

Nutshell

- CHOICE wants to see reversing aids become standard in all new cars.
- Look for a camera with a wide viewing angle as you'll be more likely to spot obstructions.

Looking back

Car reversing kits give you support, but don't rely on them entirely, says **Matthew Steen**

Over the past few years, we've all heard of tragedies where a car has accidentally reversed over a child. A car reversing kit includes a camera that you attach to the rear of the car, along with a monitor for viewing. When the reverse gear is selected the monitor powers up, showing the camera's view.

Our testing of car reversing kits found that, while they're helpful in reducing blind spots, you can't rely on them entirely. It's best to combine them with multiple ultrasonic proximity sensors and commonsense – before reversing, check your rear view, keep an eye out over your shoulder and ensure your children or pets are out of the way.

One of the major downsides to all reversing cameras on test is the lack of viewing angle. When an obstruction was behind either rear wheel, we couldn't see it in any of the models, which is where proximity sensors would come in handy. On the flipside, a wide viewing angle of more than 140° side to side, tends to create a fish-eye effect that decreases the picture quality.

Some models on test can be used with multiple cameras, which is particularly useful when towing a caravan or boat. With the addition of extra cameras, the monitor screen is split so you can see all the camera angles. The Elinz 7 Monitor HD has a large seven-inch monitor to better display the vision from multiple cameras. Of course, having extra cameras will add to the cost.

If you're comfortable around car electronics, you may be tempted to try installing these kits yourself, but the instructions can lack detail. We strongly recommend having them professionally installed for the best possible result, even though this will add up to a couple of hundred dollars to the cost of the kit.

For full details on what to look for, go to **choice.com.au/carreverse**

Most of the cameras are installed on the licence plate or bumper bar area, while the monitors can be mounted on the dash or windscreen, or clipped on the rear-view mirror. However, the Carkitco actually replaces the rear-view mirror, and is difficult to install. We'd heard of complaints about electronic interference with these kits, but after trying indicators, mobile phone calls, listening to the radio and using the window wipers, we didn't find any interference that compromised their use.

These are useful devices and, combined with multiple proximity sensors, are a safety addition CHOICE would like to see become standard in all new cars. For detailed information about other reversing aids, log on to choice.com.au/caraids. ■

HOW WE TEST

Our tester, Peter Horvath, tests the angle, visibility and picture quality of each model using a rig. Visibility is tested in bright daylight as well as in dimly lit situations. We also test for electronic interference from turning indicators, mobile phone calls, windscreen wipers and the in-car radio.

WHAT TO BUY

73%
Response QM-3796

Good points
- Very good viewing angle and daylight visibility

Bad points
- Borderline visibility in dimly lit conditions and poor visibility in darkness
- Borderline picture quality

72%
Elinz 7 Monitor HD

Good points
- Excellent daylight visibility and good visibility in dimly lit conditions
- Excellent picture quality

Bad points
- Only OK viewing angle and visibility in darkness

72%
Polaris CM35 + Camera A

Good points
- Good viewing angle and picture quality
- Very good daylight visibility and good visibility in dimly lit conditions

Bad points
- Poor visibility in darkness

71%
Strike MO-116D

Good points
- Good viewing angle and picture quality
- Very good daylight visibility

Bad points
- Only borderline visibility in dimly lit conditions and poor visibility in darkness

		PERFORMANCE				SPECIFICATIONS								
	Price ($)	Overall score (%)	Angle score (%)	Visibility score (%)	Picture quality score (%)	Type of screen	Wireless installation	Screen size (in)	Number of cameras that can be used	Location of camera	Location of monitor	Country of manufacture	Contact
Response QM-3796	199	73	89	63	50	Monitor	✓	3.5	1	L, B, W	Windscreen	China	jaycar.com.au
Elinz 7 Monitor HD	195	72	62	78	90	Monitor		7.0	3	L	Dashboard	China	elinz.com.au
Polaris CM35 + Camera A	395	72	74	69	70	Monitor		3.5	2	L	Dashboard	ns	polarisrearvision.com.au
Strike MO-116D	228	71	77	63	70	Monitor		3.5	3	L	Dashboard	ns	strike.com.au
Cellpak RGS-433P	274	68	81	53	60	Mirror		4.3	1	L, B	Mirror clip-on	ns	cellpak.com.au
Carkitco RVM43 + Minicam	384	67	75	53	70	Mirror		4.3	1	L, B	Mirror	ns	thecarkitcompany.com.au
Mongoose LCD43M/MC304	488	67	70	53	80	Mirror		4.3	1	L, B	Mirror clip-on	ns	mongoose.com.au
Response QM-3806	299	66	66	63	70	Monitor	✓	3.5	4	B	Windscreen	China	jaycar.com.au
Gator ARV350WD	149	65	64	58	80	Monitor		3.5	1	L	Dashboard	China	aerpro.com.au
Rhino VSDS-RVM4.3	350	64	65	58	70	Mirror		4.3	1	L, B	Mirror clip-on	ns	rhino.com.au
Elinz 3.5 Wireless	145	63	64	63	60	Monitor	✓	3.5	1	L	Dashboard	China	elinz.com.au
Gator ARV36SYS	249	63	61	63	70	Monitor	✓	3.5	1	L	Windscreen	China	aerpro.com.au

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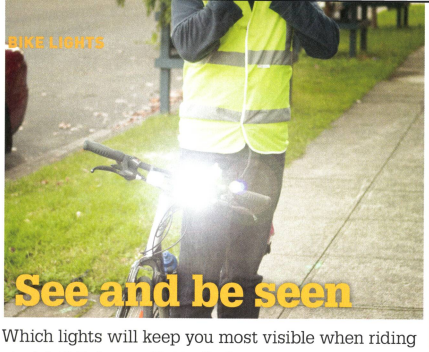
USING THE TABLE Scores The overall score is made up of angle (50%), visibility (30%) and picture quality (20%). **Price** Recommended or average retail, as of May 2012. **TABLE NOTES ns** Not stated. **L** Licence plate. **B** Bumper bar. **W** Rear window.



See and be seen

Which lights will keep you most visible when riding at night? **Rebecca Gatto** finds out

Nutshell

➤ *Ride On*, Bicycle Network Victoria's magazine, tested 30 new bike lights in its annual test, including compact front and rear lights and high-powered front LEDS.

As road users, bike riders are legally obliged to be visible when riding in the dark, so the lights you fit to your bike must make you as visible as possible.

Bicycle Network Victoria takes the issue seriously and each year gathers a panel of industry experts, including CHOICE, to assess a range of bike lights. The panel meets in an inner-city Melbourne laneway after sunset and assesses each light in line with the Australian Road Rules.

Each light is assessed at a distance of 200m – the minimum distance at which lights must be visible – and also at 50m with the lights angled at 45° to simulate the bike approaching an intersection. The lights are tested in flashing mode because, in an urban environment, street lights illuminate the way and flashing bike lights make you the most visible among traffic.

Durability, size, ease of fitting and removal, waterproofness and battery replacement should also be considered when buying a light. Each year, Bicycle Network Victoria collaborates with RMIT industrial design students to assess these categories and give a rating out of 10 for each light.

Make sure your lights are tightly secured. If not, you could go over a bump or pothole and your lights could end up pointing at the ground

What's new?

This year a couple of extra tests were included. *Ride On* joined forces with RMIT to use their lux meter, a device that measures brightness. Each light was measured from 10m, following the stringent German StVZO standard for bicycle lighting.

Interestingly, the panel's judgment of the most visible lights wasn't in line with the lux meter results. The brightest front compact light according to the lux meter was only rated eighth by the panel out of the 11 front lights. The most visible light according to the judges was 5.8 lux. In judging brightness, people take into account a range of environmental factors, which may account for these differences.

Ride On has found people are interested in how easily lights turn on accidentally, so RMIT was asked to include this when assessing their design and construction. The rating for this was incorporated into the useability score.

There were three significant casualties during the durability test, in which lights are dropped from handlebar height: the Moon Gem 3.0 broke apart, the housing of the central LED of the Serfas TL-ST Seat Stay Taillight broke, and the connection between the light and battery became loose on the Ilumenox Vega. For the full results, log on to choice.com.au/bikelights. ■

WHAT TO BUY

COMPACT FRONT

77%
Moon Mask, $60

COMPACT REAR

78%
Tioga Dual Eyes, $35

HIGH-POWERED FRONT LEDS*

77%
Moon Power 500, $149

* THESE LIGHTS REQUIRE A SEPARATE BATTERY PACK, ALTHOUGH SOME NOW COME INCORPORATED IN THE LIGHT. THEY ALSO OFFER A LOT MORE LIGHT OUTPUT THAN COMPACT LIGHTS

A case of the blues

The days of a Blu-ray player only spinning discs are long gone. The future is networking, and that's where things can get complicated, says **Chris Ruggles**

Nutshell

- DLNA is a bonus if you want to connect to a home network.
- All the players on test play Blu-ray and DVD discs.

Almost all home entertainment equipment sold today has some form of connectivity built in, and Blu-ray players are no exception. Of the 22 players on test, 13 have wireless (at least as an option), all except three have DLNA connectivity (see Why DLNA matters, page 63) and only the Toshiba can't connect to the internet for upgrades.

Our testing checks that products live up to their claims to play certain disc and file formats – and that you don't require a background in IT to use them. Fortunately, no player on test is particularly difficult to use, and the ones that score best for ease of use can save you much frustration in getting them to "talk" to your network as well.

WHAT TO LOOK FOR

DVD upscaling lets you view your DVDs in an enhanced video mode: the picture is interpolated to either 1080i or 1080p, so your DVD movie looks very much like HD. You need an HDMI connection and a TV that can display HD to enjoy the benefits. All players on test can do this to a reasonable quality except the Onkyo BD-SP809, which produces a softer image than the others.

The **remote control** should have buttons that are sized, shaped and spaced so you can easily find and press them individually. They should be grouped so you can quickly go to specific functions, and the most commonly used buttons should be prominent.

USB ports allow you to plug in storage devices to take advantage of extra BD-Live content from the web, play formats other than DVD and BD or attach a wireless dongle if the player supports wireless.

Memory cards can be taken directly from a camera or similar device and plugged into some players. Otherwise, you can use them in the same way you would a USB storage device.

Internet connection can deliver extra features, but not all are available on every model. Some players use the internet connection to upgrade the firmware or operating software.

Video streaming means you can play video stored on another device via your Blu-ray player.

3D-ready means the player will recognise and play a 3D disc, but you'll need a 3D-capable TV too.

Wireless connectivity can mean easier upgrading and connection to a DLNA server on your home network. Some models have it built in; you'll have to pay extra if it's an option via a USB dongle.

WHAT TO BUY

80%
Philips
BDP5200/79

Best Buy

$199

Good points
- Good value for money
- Claims to play most discs and formats (not DVD-audio or SACD)
- Very low standby energy consumption (quick start off)
- SD memory card slot

Bad points
- Requires extra memory for BD-Live

79%
Oppo BDP-93AU

$649

Good points
- 7.1-channel analog audio outputs
- Will play most discs and formats
- 2GB internal memory
- HDMI cable included
- Very low standby energy consumption

Bad points
- Relatively expensive
- Pro kit version costs an extra $249

79%
Sony BDP-S780

$379

Good points
- Claims to play most discs and formats (not DVD-audio, SACD or video CD)
- Very low standby energy consumption (quick start off)

Bad points
- Requires extra memory for BD-Live

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		PERFORMANCE								FEATURES			
	Price ($)	Overall score (%)	Ease of use score (%)	Picture quality score (%)	Versatility score (%)	Load time score (%)	Error correction score (%)	Power consumption score (%)	Power consumption (W) / quick start / standby / disc spinning)	Wireless	Update via internet	Video streaming	DLNA
Philips BDP5200/79	199	80	72	95	87	55	100	79	11.7 / 4.4 / 0	a/b/g/n	Wired, wireless, USB	✓	✓
Oppo BDP-93AU	649	79	82	95	77	56	100	55	18.4 / na / 0.3	b/g/n	Wired, wireless, USB, disc	✓	✓
Sony BDP-S780	379	79	71	93	85	55	100	77	10.8 / 9.3 / 0.2	b/g/n	Wired, wireless	✓	✓
Samsung BD-D6500	249	78	70	94	85	46	100	85	11.2 / na / 0.6	b/g/n	Wired, USB, disc, wireless	✓	✓
Yamaha BD-S671	349	78	74	93	74	44	100	90	11.7 / na / 0.1		Wired, USB, disc	✓	✓
Samsung BD-D5500	199	76	70	94	74	44	100	89	10.3 / na / 0.6	✓(A)	Wired, USB, disc	✓	✓
Sony BDP-S580	199	76	71	93	79	42	100	81	9.1 / 6.4 / 0	b/g/n	Wired, wireless	✓	✓
# Pioneer BDP-140	249	76	75	93	75	39	100	77	11.3 / 7.7 / 0.1	Optional (A)	Wired, USB, disc	✓	✓
Samsung BD-D5300	199	75	66	94	67	45	100	94	8.4 / na / 0.4	a/b/g/n	Wired, USB, disc	✓	✓
# Pioneer BDP-440	499	75	75	93	75	37	100	75	11.7 / 8.7 / 0.1	Optional (A)	Wired, USB, disc	✓	✓
Philips BDP3200/79	129	74	72	94	37	57	100	97	10.2 / na / 0.1	b/g/n	Wired, wireless, USB	✓	
# Yamaha BD-A1010	699	74	73	93	74	45	90	65	16.2 / na / 0.3		Wired, USB, disc	✓	✓
Denon DBP-1611UD	699	73	68	95	64	50	100	63	17.3 / na / 0.1		Wired	✓	✓
Marantz UD5005	795	73	65	95	67	47	100	68	16.4 / na / 0.1		Wired	✓	✓
Panasonic DMP-BD75	149	72	66	96	54	70	56	89	7.7 / 3.3 / 0		Wired, disc	✓	✓
Panasonic DMP-BDT110	219	72	67	94	64	41	84	90	9.1 / 3.6 / 0	✓(A)	Wired, disc	✓	✓
Panasonic DMP-BDT310	349	72	67	94	77	54	41	89	8.4 / 3.3 / 0	a/b/g/n	Wired, wireless	✓	✓
Samsung BD-D6900A	349	72	68	88	84	52	88	48	16.4 / na / 1.7	✓(A)	Wired, wireless, USB, disc	✓	✓
# Sony BDP-S185	129	71	69	93	27	56	100	97	5.9 / na / 0.2		Wired	✓	
Toshiba BDX1200	159	67	66	87	19	46	100	94	10.2 / na / 0.3		USB, disc		
Onkyo BD-SP309	599	63	62	91	49	21	57	98	7.7 / na / 0.1		Wired, USB	✓	✓
# Onkyo BD-SP809	599	62	69	89	58	31	33	69	12.9 / 8.7 / 0.2		Wired, USB, disc	✓	✓

USING THE TABLE **Scores** The overall score is made up of ease of use (30%), picture quality (20%), versatility (15%), load time (15%), error correction (10%) and power consumption (10%). **Features** See **(A)** Wireless protocol not stated. **(B)** Component output is limited to DVD quality. **na** Not applicable.

78%
Samsung BD-D6500

Good points
- Good value for money (end-of-run model so may be heavily discounted)
- Claims to play most discs and formats (not DVD-audio, SACD or video CD)

Bad points
- Requires extra memory for BD-Live

78%
Yamaha BD-S671

Good points
- Claims to play most discs and formats (not DVD-audio, SACD or video CD)
- Very low standby energy consumption

Bad points
- Video via its component output is limited to 576i
- Requires extra memory for BD-Live
- No wireless option

ABOUT THE REST

All players with overall scores of 70% or more will be a good buy at the right price.

Being slow to load a disc is an issue for many models on test. However, times can vary from disc to disc, and our test score is based on a number of different Blu-ray and DVD discs. The **Onkyo** and **Pioneer** models are particularly slow to load some discs.

Players with scores below 70% for error correction (see table, below left) are likely to have trouble playing discs with greasy fingerprints or scratches, so may not be a good choice if you have children.

We included a sequence shot on a high-quality consumer video camera in AVCHD format and played it back via DVD-R on the player. All players produced excellent picture quality except the **Samsung BD-D6900A** – its motion sequences aren't smooth – and the **Toshiba BDX1200**'s images are soft and lack detail. And if you're after a DLNA-enabled player, steer clear of the **Philips BDP-3200/79**, **Sony BDP-S185** and **Toshiba** which are not. ■

WHY DLNA MATTERS

Home networks can be tricky to set up and use. The Digital Living Network Alliance (DLNA) has created a standard to make the process easier. DLNA-enabled products should recognise a DLNA server and connect to it without problems. DLNA servers can reside on your home computer or another device designed to be a DLNA server.

All DLNA-enabled products on test connected fairly easily and most are easy to use. However, our testers found the **Denon DBP-1611UD** relatively difficult to navigate as was the **Onkyo BD-SP309**, which is also slow to respond to commands.

Once set up you can use the player to connect to anything on your network and often to internet services such as YouTube. Not all models will recognise all files, so ensure a player will handle files you normally work with.

SPECIFICATIONS

outputs (component / composite)	Analog audio outputs	Digital audio outputs (coaxial / optical)	HDMI outputs	Internet memory (GB)	USB ports	Dimensions (cm. W x H x D)	Weight (kg)	Website
✓	✓	✓/-	1		Front	43.5 x 4.3 x 20.7	1.7	powermove.com.au
✓	7.1	✓/✓	2	2	Front, rear	42.9 x 8 x 30.5	4.8	internationaldynamics.com.au
✓	✓	✓/✓	1		Front, rear	43.8 x 4.8 x 19	1.8	sony.com.au
✓	✓	-/✓	1		Front	42.8 x 3.8 x 20.6	1.7	samsung.com.au
(B)/✓	✓	✓/✓	1		Front, rear	43.5 x 8.5 x 25	2.9	yamaha.com.au
✓	✓	-/✓	1		Front, rear	42.8 x 4.5 x 21	1.7	samsung.com.au
✓	✓	✓/-	1		Front, rear	42.8 x 3.4 x 19	1.6	sony.com.au
✓	✓	-/✓	1		Front, rear	43.5 x 6 x 24.5	2.2	pioneer.com.au
✓	✓	-/✓	1		Front, rear	43.1 x 4.5 x 20.4	1.7	samsung.com.au
✓	✓	-/✓	1		Front, rear	43.5 x 9 x 24.5	2.6	pioneer.com.au
✓	✓	✓/-	1		Front, rear	43.5 x 4.3 x 20.7	1.7	powermove.com.au
(B)/✓	7.1	✓/✓	1		Front, rear	43.5 x 9.5 x 31	4.2	yamaha.com.au
✓	✓	✓/-	1	1	Front	43.4 x 10.7 x 31.9	4.2	audioproducts.com.au
✓	✓	✓/-	1	1	Front	43.8 x 10.7 x 32.3	4.4	qualifi.com.au
✓	✓	-/-	1		Front	42.8 x 3.5 x 19	1.4	panasonic.com.au
✓	✓	-/✓	1		Front, rear	42.8 x 3.5 x 19	1.4	panasonic.com.au
✓	✓	-/✓	2		Front, rear	42.8 x 3.5 x 19	1.6	panasonic.com.au
✓	✓	-/✓	1	1	Front	43 x 3.7 x 25.6	1.8	samsung.com.au
✓	✓	✓/-	1		Front	29 x 4 x 19.5	1.1	sony.com.au
✓	✓	✓/-	1		Front	43.5 x 4.2 x 19	1.5	toshiba.com.au
-	✓	-/✓	1		Front, rear	43.5 x 5.5 x 20	1.8	ambertech.com.au
(B)/✓	✓	✓/✓	2		Rear	43.5 x 10.5 x 31	4.8	ambertech.com.au

hat to Look For, page 61. **Price** Recommended retail, as of May 2012. **Table notes** # Newly tested model.

Bigger & brighter

TVs are becoming smarter, but do they need to be quite so clever? **Denis Gallagher** looks at some screen legends

An Olympic year often spells a jump in TV sales, as many of us look to buy the latest and greatest TVs to see our athletes fly higher and run faster. The London Olympics is even more significant for sports fans in the market for a new TV as you'll be able to watch the opening and closing ceremonies in 3D, and catch a 3D highlights package each night.

The other big development for 2012 are the improvements in Smart TV technology, delivering video streamed to your TV via an internet connection.

While Smart TVs have been available for some time, you needed technological know-how to make connections between media stored on your PC, your broadband connection and the TV. The latest TVs have automatic access to media stored on a hard drive or PC connected to the home network, as well as improved web browsers to access online content.

Smart TVs offer many of the networking and social apps, such as Twitter and Skype, that previously were the domain of the home computer or smartphone, and you can even make Skype video and voice calls with support for USB webcams.

The Samsung UA55ES8000, is one of the smartest TVs our tester Scott O'Keefe has seen, with wireless and ethernet connectivity, as well as the ability to operate many of the TV's menu controls through motion (waving at the TV) or voice control. It's also the first TV we've tested with a built-in webcam. While the motion and voice detection is less useful than selecting the appropriate control on the remote, performance in this area should improve over time. The Samsung also scored the best on test where it counts – for watching HDTV as well as Blu-ray (BD) and DVD films.

LG TVs that performed best overall may not have the Smart TV features of the other recommended models, but they're significantly less expensive and deliver good overall picture quality and are easy to use.

If you aren't ready for a Smart TV, you can add the feature later. As our Blu-ray test (page 61) shows, it's not just TVs bringing the online world into the lounge room.

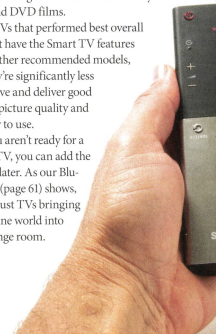
Nutshell

- The latest Smart TVs bring the world of online content into your lounge room.
- More live 3D content needs to be delivered before 3D becomes a must-have feature.

Jargon buster

Catch-up TV is when a show is downloaded to be watched on demand. Downloads may cost you extra unless your ISP has agreed not to deduct downloaded content from certain channels from your monthly internet data plan. For example, if your internet plan is with Telstra, movies downloaded from the BigPond Movies section of your Smart TV wouldn't count towards your data plan. If you're with Optus or TPG, this content could be added to your data allocation.

IMAGE: PANASONIC



WHAT TO BUY

75%
Samsung UA55ES8000

Good points
- Voice and motion recognition for basic control functions, such as volume and channel change
- Best picture quality performance for BD, DVD and HDTV
- Web camera
- 3D capability
- Can record to a USB HDD
- Three USB ports
- Built-in Wi-Fi

Bad points
- Stand doesn't swivel
- No Video Graphics Array input

74%
Panasonic TH-P50ST50A

Good points
- Good picture quality
- 3D capability
- Can record to a USB HDD
- Built-in Wi-Fi
- SD card input
- Least-expensive Smart TV among our recommended models

Bad points
- TV speaker can't be turned off for use with a home theatre system

For more details, including the full profiles, visit **choice.com.au/TVs**

74%
LG 50PA4500

Best Buy

Good points
- Good HD broadcast viewing
- Good DVD and BD viewing
- Good sound quality
- Very good EPG

Bad points
- No composite video input
- No headphones output

74%
LG 50PA6500

Best Buy

Good points
- Good HD broadcast viewing
- Good DVD and BD viewing
- Very good EPG

Bad points
- No composite video input
- No headphones output

WHAT TO LOOK FOR

Digital Living Network Alliance (DLNA) is a standard for networking devices designed to make it easier for you to enjoy downloaded videos, photos and music on your consumer electronics products such as TVs, DVRs and Blu-ray/DVD players.

Refresh rate A true comparison in refresh rates between TVs can be an important indicator of how well the TV handles fast-moving objects in a scene. However, the practice of some LCD TVs of displaying useless figures such as "800 Motionflow XR" or "200MHz Aquamotion backlight scanning system" is making it difficult to make a true comparison across brands and models.

SD cards The Panasonic TH-P50ST50A, TH-L47ET50A TH-P50XT50A and TH-L47ET5A support SD cards for video and still images.

USB connection This can be useful for reading photos, videos and music from digital devices and for storing videos on TVs with DVR.

Electronic program guide (EPG) helps you find out what shows are to be shown over the next seven days, and sometimes longer, and can also be used in conjunction with the USB recording (DVR) capabilities available on almost half the large-screen TVs on test.

Screen resolution Higher numbers mean more pixels and better detail. The highest resolution is 1920 x 1080, also called 1080p. The p stands for progressive scanning, where the picture is shown as a complete video frame, compared with broadcast HD at 1080i, which interlaces one line after another in quick succession.

OTHER WHAT TO BUYS

71% Sony KDL-46HX850	$3299
70% LG 60PZ950	$2399
70% Panasonic TH-L47ET50A	$2049
70% Sony KDL-46HX750	$2699

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		PERFORMANCE												FEATURES																
	Price ($)	Overall score (%)	Broadcast picture quality (%)	DVD picture quality (%)	BD picture quality (%)	Sound quality (%)	Ease of use (%)	Energy (%)	Viewing angle (%)	DVR (%)	EPG (%)	3D (%)	3D capable	Swivel	Previous channel	Remote can operate other devices	Stereo outputs	TV speakers off for use with HT	Digital audio Toslink (optical)	Headphones 3.5mm	Stereo 3.5mm input	Wi-Fi	DLNA functionality
Samsung UA55ES8000	4599	75	81	80	83	63	61	85	70	53	50	70	✓		✓	✓		✓	✓	✓	✓	✓	✓
Panasonic TH-P50ST50A	1749	74	79	73	77	67	67	78	90	66	70	50	✓	✓	✓	✓			✓	✓	✓	✓	✓
LG 50PA4500	999	74	72	76	72	71	71	80	90	na	80	nc		✓	✓	✓		✓	✓		✓		
LG 50PA6500	1099	74	72	76	77	69	70	78	90	na	80	nc		✓	✓	✓		✓	✓		✓		
Sony KDL-46HX850	3299	71	77	75	68	61	63	85	70	na	70	80	✓	✓		✓		✓	✓	✓	✓	✓	✓
LG 60PZ950	2399	70	74	64	69	59	72	75	90	na	nc	nc	✓	✓	✓	✓		✓	✓			✓	✓
Panasonic TH-L47ET50A	2049	70	74	70	65	57	66	85	80	66	70	80	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
Sony KDL-46HX750	2699	70	79	67	69	57	63	85	70	na	70	70	✓	✓		✓		✓	✓	✓	✓	✓	✓
Panasonic TH-P50XT50A	1199	69	73	65	75	52	65	80	90	66	70	50	✓		✓	✓	✓		✓	✓			✓
Samsung PS51E450A1M	900	69	73	64	67	73	60	80	90	na	80	na			✓			✓	✓		✓		
Samsung PS51D8000	2599	68	72	62	64	68	66	70	90	64	nc	nc	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
LG 50PZ570	1499	67	68	64	54	63	72	75	90	na	nc	nc	✓	✓	✓	✓		✓	✓				✓
LG 50PZ650	1299	67	67	64	60	64	72	75	90	55	nc	nc	✓	✓	✓	✓		✓	✓		✓		✓
LG 50PZ950	1999	67	67	65	61	63	71	75	90	55	nc	nc	✓	✓	✓	✓		✓	✓		✓	✓	✓
LG 55LW9500	2699	67	72	61	64	70	72	80	40	58	nc	na		✓	✓	✓		✓	✓	✓	✓	✓	✓
Sony KDL55EX720	1849	67	69	59	75	67	67	85	55	na	nc	nc	✓	✓		✓		✓	✓	✓	✓	✓	✓
LG 60PA6500	1899	67	65	54	68	74	70	78	90	na	80	na		✓	✓	✓		✓	✓		✓		
Samsung PS51D550	1599	66	70	58	62	62	67	75	90	na	nc	nc	✓	✓	✓	✓		✓	✓	✓	✓		✓
Samsung PS59D6900DM	2999	66	66	64	67	55	68	70	90	64	nc	nc	✓	✓	✓	✓		✓	(A)	✓	✓	✓	✓
Panasonic TH-L47ET5A	1749	64	62	62	66	55	66	85	60	66	70	70	✓	✓	✓	✓			✓	✓	✓	✓	✓
LG 55LW6500	2599	63	52	61	66	55	72	85	70	na	nc	nc	✓	✓	✓	✓		✓	(A)	✓	✓		✓
Samsung UA55D6600WMXXY	3499	62	66	58	64	53	68	85	30	64	nc	nc	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
Sharp LC-60LE630X	2499	59	60	57	63	57	54	85	50	na	30	na			✓		✓		✓	✓	✓		

USING THE TABLE Price Recommended retail as of June 2012. **Scores** The overall score is made up of broadcast TV score (25%), DVD score (20%), Blu-ray score (15%), ease of use score (20%), sound score (10%), energ that are still available but were not tested for this at the time. **TABLE NOTES na** Not applicable. **nc** Not collected **(A)** Also has 3.5mm digital audio. **(B)** Movie downloads (other than BigPond or Quickflix).

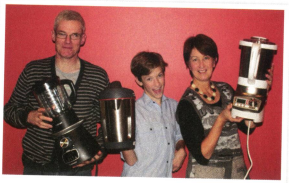
SPECIFICATIONS

Stereo RCA input (rear)	HDMI input (rear)	USB inputs	Internet connectivity and widgets	Energy star rating	Energy consumption kWh/a	Screen size (cm)	Screen resolution (pixels)	Display L=LCD (LED), P=plasma	Weight with stand (kg)	Dimensions (cm, H x W x D)
2	3	3	ABC iView, BigPond Movies, Facebook, Google+ Albums (Picasa), Google Talk, Skype, Twitter, Vimeo, Weather, YouTube	7	388	139	1920 x 1080	L	19.3	75.5 x 123 x 21
2	3	2	Plus7, ABC iView, BigPond Movies, Facebook, Google+ Albums (Picasa), internet radio, movie downloads (B), Red Karaoke, Quickflix, Skype, Twitter, Vimeo, Weather, YouTube	5.5	504	127	1920 x 1080	P	27.0	76 x 117.5 x 34
2	2	1	na	6	443	127	1024 x 768	P	28.2	76 x 116.5 x 30
2	3	1	na	5.5	500	127	1920 x 1080	P	28.8	76 x 116.5 x 30
2	4	2	Plus7, ABC iView, Facebook, movie downloads (B), Sony Entertainment Network, Quickflix, SBS On Demand, Skype, Twitter, YouTube	7	270	115	1920 x 1080	L	20.3	70 x 107.5 x 27
3	3	1	BigPond Movies, Plus7, ABC iView, Fox Sports, AFL Game Analyser, Skype, Twitter, AccuWeather.com, vTuner, NHL, MLB.tv, UCTV.fm, Google Maps, cnet, Facebook, YouTube, NRL Game Analyser, BigPond TV, Red Bull TV	5	769	152	1920 x 1080	P	44.9	91.5 x 139 x 34.5
2	4	3	Plus7, ABC iView, BigPond Movies, Facebook, Google+ Albums (Picasa), internet radio, movie downloads (B), Red Karaoke, Quickflix, Skype, Twitter, Vimeo, Weather, YouTube	7	316	117	1920 x 1080	L	19.0	70 x 109.5 x 25.5
2	4	2	Plus7, ABC iView, Facebook, movie downloads (B), Sony Entertainment Network, Quickflix, SBS On Demand, Skype, Twitter, YouTube	7	297	115	1920 x 1080	L	17.6	69 x 107.5 x 25.5
2	2	2	Plus7, ABC iView, BigPond Movies, Facebook, Google+ Albums (Picasa), internet radio, movie downloads (B), Red Karaoke, Quickflix, Skype, Twitter, Vimeo, Weather, YouTube	6	449	127	1366 x 768	P	25.5	76.5 x 118.5 x 34
1	2	1	na	6	381	127	1024 x 768	P	20.8	76.5 x 118.5 x 26
1	4	2	AP News Ticker, AccuWeather, BBC News, BigPond AFL Game Analyser, Dracula's Coffin, Explore 3D, Facebook, Finance, GalleryOn.tv, Google Maps, MemoryGame, Picasa, Rock Swap, Sudoku, This Day in History, Twitter, Nine MSN News, yourGigs, yourRestaurants, BigPond Movies, BigPond TV, NRL Game Analyser, Social TV, YouTube, Skype	4	684	129	1920 x 1080	P	24.8	80.5 x 119.5 x 31.5
3	3	1	BigPond Movies, Plus7, ABC iView, Fox Sports, AFL Game Analyser, Skype, Twitter, AccuWeather.com, vTuner, NHL, MLB.tv, UCTV.fm, Google Maps, cnet, Facebook, YouTube, NRL Game Analyser, BigPond TV, Red Bull TV	5	545	127	1920 x 1080	P	29.8	77 x 117 x 29
3	3	2	BigPond Movies, BigPond TV, Plus7, Fairfax.tv, Facebook, NRL Game Analyser, AFL Game Analyser, ABC iView, cnet, YouTube, AccuWeather.com, Twitter, CNBC, MLB.TV, Google Maps, Picasa, vTuner, Funspot, uctv.fm, I-playTV Beta, Spot the Not	5	545	127	1920 x 1080	P	29.8	77.5 x 116.5 x 29
3	4	2	BigPond Movies, BigPond TV, Plus7, Fairfax.tv, Facebook, NRL Game Analyser, AFL Game Analyser, ABC iView, cnet, YouTube, AccuWeather.com, Twitter, CNBC, MLB.TV, Google Maps, Picasa, vTuner, Funspot, uctv.fm, I-playTV Beta, Spot the Not	5	545	127	1920 x 1080	P	32.5	79 x 117.5 x 32
3	4	2	MLB.tv, Facebook, Funspot, Google Maps, Al Jazeera, YouTube, Twitter, vTuner, Picasa, AccuWeather, Spot the Not	6	460	139	1920 x 1080	L	29.0	83.5 x 125.5 x 28.5
2	4	2	Facebook, Twitter, Skype, Qriocity Video on Demand, Qriocity Music Unlimited, ABC iView, SBS, Plus7, Moshcam, Billabong, YouTube, The Wiggles, uctv.fm	7	419	138	1920 x 1080	L	25.4	80.5 x 126 x 31.5
2	3	1	na	5.5	695	152	1920 x 1080	P	40.6	88 x 138.5 x 35.5
2	4	2	na	5	539	129	1920 x 1080	P	26.1	79 x 119.5 x 30.5
1	4	2	ABC iView, AP News Ticker, AccuWeather, BBC News, Dracula's Coffin, Explore 3D, Facebook, GalleryOn.tv, Google Maps, Memory Game, Picasa, Rock Swap, Sudoku, History Channel, Twitter, Nine MSN News, yourGigs, yourRestaurants	4	918	149	1920 x 1080	P	36.3	89 x 137 x 34
2	4	3	Plus7, ABC iView, BigPond Movies, Facebook, Google+ Albums (Picasa), internet radio, movie downloads (B), Red Karaoke, Quickflix, Skype, Twitter, Vimeo, Weather, YouTube	7	302	117	1920 x 1080	L	20.5	71 x 110 x 27
2	4	2	BigPond Movies, Plus7, ABC iView, Fox Sports, AFL Game Analyser, Skype, Twitter, AccuWeather.com, vTuner, NHL, MLB.tv, UCTV.fm, Google Maps, cnet, Facebook, YouTube, NRL Game Analyser, BigPond TV, Red Bull TV	7	350	140	1920 x 1080	L	27.0	85 x 129 x 34
2	4	3	ABC iView, AP News Ticker, AccuWeather, BBC News, Dracula's Coffin, Explore 3D, Facebook, GalleryOn.tv, Google Maps, Memory Game, Picasa, Rock Swap, Sudoku, History Channel, Twitter, Nine MSN News, yourGigs, yourRestaurants	7	410	139	1920 x 1080	L	21.9	79 x 124.5 x 30.5
3	3	1	na	7	498	152	1920 x 1080	L	32.5	87.5 x 138.5 x 33.5

ore (5%) and viewing angle score (5%). DVR score, EPG score and 3D score are not included in the overall score. CHOICE has recently been testing models for EPG and 3D performance, with an nc (not collected) mark for models

Soup of the day

CHOICE member **Winsome Hall** turns up the heat in the kitchen and tests three soup makers

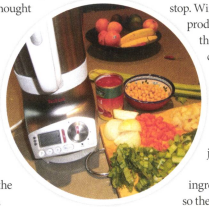


Geoffrey, Rowan (13) and Winsome Hall, our keen home testers, get ready to try out the soup makers

Having a hot and healthy homemade soup on the table is always welcome at this time of year, so we asked CHOICE member Winsome Hall to put three soup makers to the test.

First up was Cuisinart's Hot & Cold Blender (see *CHOICE*, June 2012, page 47). Winsome was impressed with how the clear instructions made using this product very easy, but thought they should have mentioned not to immerse the jug in water. It isn't a standard blender jug, although it looks and feels like one.

She also said that "the controls are very straightforward and make it easy to control the temperature and length of cooking".



Prepped and ready to give the soup makers a whirl

However, with the recipe Winsome was following, she had to allow for twice the recommended cooking time, and the beep signalling the end of cooking was extremely loud and annoying. She also felt this product is best suited to smooth-textured soups and wouldn't use it for chunky soups such as minestrone.

Next in line was the Morphy Richards Soup Maker. The straightforward instructions and clearly labelled controls made this product simple to use, and the flat, easy-push buttons are easy to clean, as is the blade, which is housed in the lid. But that's where the praises stop. Winsome found the product to be heavy and the lack of temperature control a problem.

"There was no gentle cooking, just boiling hard so the ingredients caught on the bottom of the jug," she said.

"I transferred the ingredients to a saucepan so the heat could be controlled." She also felt that the blender only commenced at the end of cooking and claimed "the mixing blades only appeared to work when I pushed the blender control".

To top things off, Winsome felt the recipe provided was a little hit and miss, and she ended up with an "extremely thick soup rather than a broth".

The Tefal Soup and Co was the final product Winsome put through its paces. She said the instructions made it easy to use, and the digital timer panel is reasonably legible. She also felt the recipe supplied was well laid out.

"The blender jug can make 1.8L – sufficient for a family of four – and the heater control ensured the soup contents did not burn. Success!"

However, there was one hiccup. Because Winsome had cooked the soup a few hours before it was being served, when she wanted to reheat the soup, "it was not obvious how to do this and I ended up reheating it in a saucepan".

On the whole, the blades were very easy to rinse and the raised buttons were simple to wipe around, and with the exception of the reheating issue, "this product worked well and did everything it promised".

RESHMA PRASAD

Cuisinart Hot & Cold Blender SSB-1A, $299, cuisinart.com.au

Morphy Richards Soup Maker 48821, $170, morphyrichards.com.au

Tefal Soup and Co BL900, $299, tefal.com.au

Winsome's verdict

Of the three soup makers Winsome tested, the Morphy Richards was her least favourite. Its 1L capacity made it unsuitable when catering for a family and she felt it would be better suited to a single-person household. The other two fared slightly better, and Winsome said she'd consider buying the Cuisinart or Tefal, but only because she doesn't currently own a standard jug blender.

Carried away

Try before you buy when choosing a baby carrier or sling, says **Chris Barnes**

Nutshell

- 10 front-pack carriers and slings put to the test by 10 mums and their babies, plus a physiotherapist.
- Slings proved less popular than the carriers in our test, but still found some fans.

A baby carrier or sling is a great way to keep your hands free while enjoying close contact with your child. When choosing one, it's worth trying a few different models before you buy. Correct fit is vital, for both the baby and parents, so you are safe, secure and comfortable. And that means both parents need to try it on.

In a recent CHOICE survey, 23% of dads reported noticeable discomfort, their baby almost falling out or even injury to the baby, when wearing a carrier or sling. So, if both parents are going to wear the carrier or sling, it needs to be adjustable in order to fit them both.

We put out a callout via Facebook for parents keen to test baby carriers and had more than 100 responses (all from mothers – no dads, unfortunately). We chose 10 mums, covering a range of heights, builds, baby ages and personal carrier/sling preferences. The mums assessed 10 carriers and slings at our headquarters to find out which are most comfortable, secure and easy to use. Physiotherapist Karen Herbert from the Sydney Children's Hospital also joined us to observe the mums and babies using the carriers and slings and to offer her expert opinion.

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Safe and supported

A carrier or sling should support a baby sufficiently without overly restricting head, leg and arm movement. The ideal "flexed" posture for a baby is in a "cuddling" position, with legs splayed (not too widely) and supported around the thighs and bottom. Head support is particularly important for younger babies, who have little or no head and neck control.

If you're considering a sling, remember that babies have suffocated in these. At most risk are premature babies or those under the age of four months, with low birth weight or breathing difficulties. In these cases, a pouch or wrap may be a better option. Avoid positioning your baby so their face is pressed against the fabric or your body, or so they're lying with a curved back with chin tucked against their chest.

PROFILES

We haven't scored the carriers or slings since our trial was fairly small, but we have indicated how many mums in our trial would consider buying each product.

The carriers and slings are grouped in line with our findings, and you can use this as a guide to which models to try before others. Some models fit into several categories – for instance, the Hugabub was most popular among mums with young babies, but mums with older babies liked it too. Similarly, the BabyBjorn was most popular with mums who were tall or of average height, but shorter mums also found it comfortable.

Up to six months

BabyBjorn Miracle 096065, $200

Recommended age/size Newborn (3.5kg and 53cm) to 12kg (approx. 15 months)
Type Structured pouch
Triallist rating One of the highest-rated in the test. Six out of 10 are very likely to consider buying it.

Rated better for:
- users with babies up to six months of age
- users of average height or taller, and average or larger builds
- users accustomed to a pouch or wrap-style carrier.

User trial comments "The shoulders could be a bit better padded, but that does not detract from an otherwise extremely comfortable, supportive pouch/carrier."
Physiotherapist notes This fits well, with multiple adjustment points and good lumbar support. The baby is well-supported and the wearer can maintain a good extended posture. Overall, this pouch is safe and suitable with correct adjustment.

Best Buy

Hugabub Pocketless Wrap, $79

Recommended age/size Premature baby to two years
Type Cloth wrap
Triallist rating Rated well overall. Seven out of 10 are very likely to consider buying it.

Rated better for:
- babies up to three months of age
- tall users and users of slight build
- users of wrap-style carriers.

User trial comments "Takes a little getting used to, but it's very easy to use, especially with the instructional DVD."
Physiotherapist notes Most mothers struggled to put on this wrap. The width of the fabric allows the weight to be distributed comfortably over a larger area. The baby can be very well-supported in a flexed posture and, when facing away, the baby has good trunk and leg support, allowing excellent upper and lower limb movement. It's safe and suitable if applied with care.

Britax Safe N Sound K011000-AU, $149

Recommended age/size 3.5-15kg
Type Structured pouch
Triallist rating Rated well overall. Two out of 10 are very likely and four are reasonably likely to consider buying it.

Rated better for:
- babies aged three to six months
- users of average height and those with average or larger builds
- users of pouch-type carriers.

Rated worse for:
- users of slight build.

User trial comments "The wide straps help to distribute the weight well over your back, and it's fairly comfortable."
Physiotherapist notes It offers very good wearer comfort. The strap on the shoulders and upper back is one arch-shaped piece, which means it stays in place and distributes weight over a wider area. The hip strap helps the wearer retain good posture, while the head support offers support but also space between the wearer and child. Suitable for all babies and mums in the trial.

For full profiles of each product, go to **choice.com.au/babycarriers**

Six months and up

Ergobaby Performance BCP02500, $199*

Recommended age/size Between 5.5kg and 20kg (or from newborn/ 3.5kg with insert)
Type Soft, structured pouch
Triallist rating One of the highest rated in the test. Three out of 10 are very likely and four are reasonably likely to consider buying it.

Rated better for:
- babies seven to 12 months of age
- short and tall users, and users of slight build.

User trial comments "It's worth mentioning the very handy pockets on the front. It could probably fit a jumpsuit, nappy and wipes in them."
Physiotherapist notes Two mothers of larger build and longer torso had issues with the straps sitting very high and cutting into the armpits, and fitting poorly on the shoulders. The baby is well-supported by the straps, so the wearer can maintain a good posture. The infant insert supports the baby in a good hip bend posture, but can be difficult to position inside the sling. With practice and suitable adjustment this carrier should provide good support, especially for larger children.

*(optional Heart2Heart infant insert $35)

Manduca Classic, $159

Recommended age/size 3.5-20kg
Type Soft, structured pouch
Triallist rating Rated well overall. Four out of 10 are very likely and three are reasonably likely to consider buying it.

Rated better for:
- babies seven to 12 months of age
- short users, and users of slight build
- users of wrap-style carriers.

User trial comments "Clever design. I like how the carrier body unzips to lengthen, and how it can carry newborns in the insert, as well as toddlers."
Physiotherapist notes Straps fit well on the wearer's shoulders and allow good posture. Integral extra piece of fabric supports the smaller baby. Baby is securely supported in a good flexed posture. It's safe and suitable for the age range trialled.

Slings & things

FOR SLING FANS
We trialled the **Minimonkey 4-in-1** ($80) and **Natures Sway Organics** ($100) slings, but found these weren't popular with many users. Only a regular wrap user gave positive feedback about these models, but even then wasn't overly enthusiastic. The physiotherapist noted that both were difficult to orientate comfortably and safely for the wearer and baby, although some mothers were able to position their babies comfortably with practice.

Another option trialled was the **Phil & Teds Pepe** ($80). While this is a pouch rather than a sling, it was liked by a regular wrap user, so may appeal as an alternative. The physiotherapist's assessment was that it was secure but generally gave poor positioning and comfort for the wearer and child.

FOR OCCASIONAL WEAR
The **Breeze Baby Ring Sling** ($79) and **Baby First Elite Cruiser** pouch ($80) were generally not favoured by our triallists. However, each still found a couple of fans. Generally, our triallists were likely to consider them for occasional use, particularly the Breeze Baby, which is light and can be worn in the water, so might be suitable for beach wear. The physiotherapist found that neither gives comfortable or adequate support for most wearers and babies. ■

Sling
Worn over one shoulder, it offers not just the face-in and face-out positions, but often also the "peapod" position, where a baby is carried around or across your body.

Pouch
A padded carrier (pouch) of firm or soft material with straps over both shoulders. These allow your baby to snuggle up in the face-in position. Many carriers also allow your baby to face out, which offers more freedom of movement and greater visibility for an older baby.

Wrap or mei tai
A long strip of cloth wrapped and tied off around the body across both shoulders, or a cloth panel with four fabric tying straps.

IMAGE: ISTOCKPHOTO

Drier and drier

A dehumidifier could be the solution you need to combat dampness at home, says **Chris Barnes**

Damp indoor air encourages mould and dust mites, and condensation can stain or ruin paintwork. Installing a dehumidifier could be the answer.

The dehumidifiers on test draw air in, filter it, cool it to condense the moisture, and then reheat it and push the warm, drier air back into the room. This warms the room, but not as much as a heater would. In winter, you can use an electric heater and dehumidifier together as each will boost the effect of the other. An unflued gas heater won't have the same effect, as it releases moisture into the room. As for airconditioners, they can be an alternative to a dehumidifier, as they dry and cool or heat the air, and may be a better option in hot, humid climates where a dehumidifier's heating effect can be undesirable.

For more details, including how we test, go to **choice.com.au/dehumidifiers**

It's worth noting that the colder a room, the slower the rate of water removal, so we test the units at different temperature/humidity combinations that reflect humid winter climates (between 8°C and 16°C and 65-90% relative humidity). Units that perform well in cold air should perform even better in warm air.

Before you buy a dehumidifier, it's worth trying to reduce the causes of dampness. For most homeowners these are longer-term projects – and may be impossible if you are renting. But if you can, try to:

- Keep rooms ventilated and warm during winter – at least 7°C warmer than outside temperatures. Insulation will help, as can heavy curtains that keep the home warm and reduce the number of cool surfaces on which water vapour condenses on. Additionally, leave windows closed on damp days.
- Fix leaks in the roof or around windows.
- Fit extractor fans over the cooktop or stove, and in the bathroom (ducted to the outside).
- Install cupboard heaters and ventilation grilles to dry out problem wardrobes.
- Vent clothes dryers to the outside and avoid hanging clothes inside to dry. Close doors when cooking, showering or using the dryer to limit the spread of moist air.
- Limit the number and size of pot plants in the house.
- Check that the ground under your house is dry. If it's wet, cover with polythene (if feasible), taping the joints, and ensuring a tight fit around piles. Check that drainage systems are diverting water away. ■

Nutshell

➤ CHOICE tests seven dehumidifiers rated to remove between 12L and 30L of water per day.

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	Price ($)	PERFORMANCE Overall score (%)	Water removal score (%)
Dry Home DH24	880	71	73
Omega Altise ODE20	430	71	67
DeLonghi CF08M	550	64	60
Dimplex GDH-DEH30E	449	64	66
Moisture Cure 928DB-20R	349	63	59
Nationwide 2020A	625	58	50
DeLonghi CF05M	449	56	45

USING THE TABLE Scores The overall score is made up of water re
** Based on electricity cost of 22c/kWh. *** At 30-32°C and 80% rela

WHAT TO BUY

71%
Dry Home DH24, $880

Good points
- Good water removal
- Easy to use, especially for mobility and emptying the tank

Bad points
- Comparatively expensive
- Only OK energy efficiency

71%
Omega Altise ODE20, $430

Good points
- Good energy efficiency
- Easy to use in all respects

Bad points
- Only OK water removal

ABOUT THE REST

The **DeLonghi CF08M** and **Dimplex** are OK for water removal, but less energy efficient than the recommended models, while the **Moisture Cure**, **Nationwide** and **DeLonghi CF05M** are less effective at water removal.

WHAT TO LOOK FOR

Humidistat This allows you to set the room's humidity level. Rotary dial humidistats without precise markings make it hard to find the humidity level.

Low temperature effectiveness Excessive moisture in the air can occur at high and low temperatures. Manufacturers might provide water removal rates at conditions which make their machines look the best, typically at 30°C and 80% relative humidity. Performance is often lower at colder temperatures. If you want to deal with winter condensation, ask for figures at 10°C and 15°C, although they will not always be available.

Mobility Wheels, castors and handles are useful as dehumidifiers can be heavy. Cord storage is handy when moving the unit or packing it away.

Tank Small water-collection tanks make a dehumidifier more compact and easier to carry around. But if the tank is too small, you'll have to empty it several times a day. Models with larger tanks won't need to be emptied as often, but can be bulkier. The tank should be easy to remove, and big enough to hold at least 4L of water. A drain hose adapter is handy for pouring the collected water straight down a drain.

Controls and **labels** should be easy to see, understand and use.

Filter All the tested models have an air filter for trapping dust and pollen, and the Omega Altise has a UV light filter for killing airborne bacteria.

Noise Most dehumidifiers make upward of 50 decibels (dB) of noise – enough to be annoying if you're trying to watch TV, talk or sleep. By comparison, most fridges make about 30-40dB of noise.

Keep an eye out for our feature on damp in an upcoming issue.

FEATURES						SPECIFICATIONS								
Timer	Photo-catalytic air filter	Humidistat	Wheels / casters	Cord storage	Carry handles	Room heating (W)*	Power consumption (W)	Running costs (c/h)**	Weight (kg)	Noise (dB)	Tank capacity (L)	Claimed water removal rate (L/day)***	Fan speeds	Contact
		✓	4	✓	1	550	389	8.6	16.4	52	4.0	24	1	dryhome.com.au
✓	✓	✓	4		2	448	271	6.0	12.6	58	5.5	20	2	omegaaltise.com.au
			2	✓	1	387	279	6.1	13.6	47	4.6	20	2	delonghi.com.au
✓		✓	4		2	568	440	9.7	13.9	57	4.9	30	2	dimplex.com.au
✓		✓	4		1	384	284	6.2	14.2	57	4.3	20	2	moisturecure.com.au
✓		✓	4	✓	1	379	240	5.3	13.1	48	4.5	20	3	dampsolutions.com.au
			2	✓	1	255	176	3.9	12.2	48	4.4	12	2	delonghi.com.au

energy efficiency (20%) and ease of use (20%). **TABLE NOTES** * Heating delivered to the room at 12°C and 75% relative humidity.
ity.

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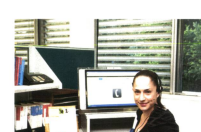

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Ear, ear!

After you carry out step three of the directions for use, you may also want to check that your head is screwed on.

Sprung a leak!

The Occident Vogue Personal Hair Care Priduct (sic) is just the thing to prevent moisture penetrating your skull.

Larger than life?

We were bemused by this "life-sized fairy", measuring in at 1.4m (at $999, it's a whopping price as well).

order only 140cm high!

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1.4m

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FOOD FROM THE HEART
We've developed some tasty
SPECIALS TO MAKE YOU SMILE

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